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THE

AMERICAN PRACTITIONER AND NEWS:

A BI-WEEKLY JOURNAL OF

MEDICINE AND SURGERY.

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D. W. YANDELL, M. D., H. A. COTTELL, M. D., AND D. T. SMITH, M. D.,
EDITORS.

VOLUMES III AND IV.—1887.

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JOHN P. MORTON & COMPANY, PUBLISHERS.
1887

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THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. III. [NEW SERIES.] LOUISVILLE, KY., JANUARY 8, 1887. NO. 1.

> *Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.*—RUSKIN.

Original Articles.

SOME OBSERVATIONS ON BREECH PRESENTATIONS.

BY RUFUS W. GRISWOLD, M. D.

At the semi-annual meeting of the Hartford County (Conn.) Medical Association, in October past, one of the assigned subjects for discussion was breech presentation. The points brought out induced the writing of this paper.

The interesting part of the matter, as it was treated of at the time, related to the management of the cases in such way as would best aid to secure the birth of the child alive. The mechanism of the delivery of the head in a breech case is gone into quite explicitly in the text-books, and it is not in the purpose of this paper to attempt more fully to illustrate this part of the subject. What is of more importance to talk about is how to efficiently assist nature in getting the head outside the vagina before pressure on the cord, arresting the circulation, has caused the death of the half-born babe. As to the management of this matter there is much laid down in the standard authors intended to help out the inexperienced attendant, which the scope of this paper will not permit going into, and is not necessary to repeat in detail in order to come at some special points in relation to the subject.

The general book-talk of the authorities is, in regard to these cases, that the operations of nature in the matter are not to be interfered with to much extent. This is probably the correct principle to act upon up to a certain time in most cases; but when that certain time has come, there is hardly any sort of obstetric case which calls for more active and efficient aid than a breech case, unless it be concluded that it is just as well all around to have a dead-born child as a live one. In a case of head presentation, where operative interference is determined upon, it may not matter if you wait a few minutes longer, more or less; for the child is not likely to die, nor the woman either, except in some special cases; but in a breech case the child, after reaching a certain stage of the labor, is going to die in a few minutes if it is not delivered. Unless there is some other special trouble beside the fact of a breech presentation, the less the case is meddled with till the breech is born the better it will be.

Judging from the statistics given, breech presentations come in one case to from fifty to a hundred. While it will happen that one practitioner has met with possibly ten cases in five hundred deliveries, to another the ten cases may not occur in a thousand; so that, unless one has had a very large private obstetric practice, his experience in breech cases is not so full as to allow of any very great number of practical deductions from the success of his manipulations in them. But out of all such jobs there is opportunity to learn something, and to lay hold on some points that may be of value in succeeding accouchements of the same sort.

The experience of the writer has been, to use a mercantile phrase, from fair to middling; not large enough to brag over, but of some worth. Trusting to memory, I should say that breech cases had not occurred in my observation more than about once in the hundred deliveries; this would give me seven or eight of them. If asked to describe the manipulations by which nature has been assisted in the delivery of these seven or eight children without killing any of them, it would be quite impossible for me to do it; for, taking each case as it has come along, and having no definite rule of action laid down to be proceeded on through the entire process of the birth, it is likely that there have been no two of them that have been met at every turn in exactly the same way. I have said—to assist nature in the delivery of the children without killing them; by which is meant, rather, to *prevent* nature killing them; for it is quite certain that, if no assistance is offered, the chances are as good as two in three cases that the infants will be still-born.

As to some points. It is to be judged from the text-books that it is not well to attempt facilitating delivery until the breech and body of the child are out of the vagina as far as the umbilicus. The reason for this is that a rather slow progress of the breech, with the legs turned up over the belly, will better soften up and dilate the passage than a rapid one. Perhaps this is so; but I object to waiting for so long as to get the umbilicus to the outlet of the vagina, unless it gets there very soon after the breech is fairly outside. I suppose the notion underlying the advice not to do any thing to facilitate progress till the umbilicus is at the outlet to be, that it is not till then that sufficient pressure is made on the cord to interrupt the circulation in it and produce the death of the child. I think that an error; for it is not pressure on the cord directly above the navel that stops the circulation of blood in it, but higher up and at the brim of the pelvis, where the head is engaged and is being crowded tightly into the passage and squeezing the cord between itself and the resisting pelvic wall. I opine that scarcely any amount of pressure that could well be brought to bear on the cord against the yielding surface of the child's abdomen, either of that part of it which is sometimes prolapsed and hanging downward from the navel, or in the return chain which goes up to the placenta, would entirely stop the circulation, or so nearly do that as to produce the death of the infant. The point of strangulation, when that comes, is where the head lies, and not where the belly is, and as the pressure and strangulation may have commenced at the brim of the pelvis before the child is out of the vagina so far as the umbilicus, my notion is, that as soon as the breech is well in the outer world the attendant should begin his assistance to the natural efforts, and endeavor to finish up the job as speedily as is consistent with due care to the mother; for it is right here that the matter of live baby or dead baby is to be decided, and sixty seconds of time may determine it one or the other way: not that the whole operation is to be done in sixty seconds, but that if it be done in three minutes the child may be alive, but if takes four the child may be dead. Therefore, as soon as the breech is fairly out, it should be seized hold of with both hands, and the attendant having noted which way the body is turning, in obedience to the turn of the head to conform its largest diameter to the largest diameter of the pelvis, should aid the expulsive effort of the pains, and accelerate the extrusion by a judicious amount of traction, and of some rotation of the body in the direction the face is taking. If so much progress is not very soon made as will expel the body so far as to turn out the legs without aid, proceed at once to get down the one belonging to the *presenting* buttock, for one buttock is always farther down than its fellow. You accomplish this operation by getting a finger over the thigh of the child and carrying it along the leg toward the knee, sweeping the knee and the leg below it across the abdomen, and thus turning it out. The other leg should be brought down in the same way, and with as little of delay as is possible. Usually, after the legs are out, the child will soon come down to as far as the shoulders in a very little time. If it does not do this in half a minute or less, make traction on the legs instead of waiting for the expulsive pain; the gentle traction will often stimulate and provoke the expulsive effort, and thus make progress without waiting. If contraction is not procured in this way, then use may be made of a measure I have heretofore spoken of, under the head of "Supplementary Effort on the Part of the Mother in Child-birth and in Expulsion of the Placenta" (New England Medical Monthly, January, 1883), and also in an article on "Expression v. Extraction of Placenta" (Louisville Medical News, September 30, 1882), to the effect that by the will-power of the woman in labor a contraction of the uterine walls may be hastened or brought on, under certain given conditions, in advance of the time at which it would come if left entirely to involuntary action. This power of voluntary effort in aid of the process of parturition is a matter worth talking about and enlarging upon, but one scarcely, if at all, spoken of in the text-books or in the lectures of the schools. It is not proposed to go into the elucidation of the subject here to so full an extent as it was treated of in the articles above named, to which the reader is referred; but it may not be amiss to bring out the substance of it in this connection.

Almost all the authorities who treat of the contractile efforts of the gravid uterus to expel its contents, lay it down, as a matter of course, that the effort is entirely and purely involuntary; indeed, it is so stated explicitly and as beyond dispute, and it has not happened to the writer of this to see it disputed, save over his own name. But I take positive exception to the correctness of the received opinion on that point; it is an error. So far as one can know any thing that his own observation teaches and his cognizance takes note of in repeated instances during a period of ten years, I know that, under the conditions undertaken to be set forth in the articles alluded to, it is often in the power of the lying-in woman to precipitate a pain, initiate a uterine contraction, start the action, if you please to put it that way, in advance, and often quite a deal in advance, of the moment when the contraction would have come if it had been simply waited for. The books leave us to think, in the main, that the efforts of the lying-in woman, in what is called bearing-down, are expended solely upon the abdominal and diaphragmatic muscles, and that the contractile tissue of the uterus itself is not and can not be acted upon by any endeavor of the patient in her own behalf; that the uterine muscles are entirely independent of the will of the woman engaged in parturition. I wish to repeat and to emphasize what is not an opinion merely, but a truth, that this view is erroneous. The recognition of the fact that there is a considerable degree of voluntary power to the influence of which the muscles of the uterus are susceptible, and that that power can be brought into service as a valuable aid in many instances and conditions, would help out many cases of child-bed confinement and allow instrumental aid to be dispensed with many times where it is now brought into service; and, furthermore, it would greatly facilitate the third stage of labor. The writer is as well convinced of this as of any other truth in relation to confinements coming under his observation in the thirty odd years of an obstetrical practice.

Bringing this somewhat episodical subject to bear upon the special matter in hand, and returning to the consideration of a breech case with the lower extremities and the lower half of the body out of the vaginal canal, and supposing, as will happen, that the pains do not follow up rapidly enough to force the child further on very soon, do not wait; use traction on the legs; stimulate a contraction by this means, and also ask the woman to bear down and give you another pain: frequently she will respond to this call and thus aid you. Having got thus far, again do not wait. Reach up and get hold of the arm of the shoulder that is lowest in the vagina; bring the fore-arm and hand across the chest and turn them out in the same way the legs were managed, and then get the other. If the arm is extended upward alongside of the head, it should be brought down across the face. The arms down, turn out one shoulder at a time; this accomplished, you have the neck at the outlet and the face in the sacrum. At this stage of affairs it is well to have an assistant to take care of the body of the child, if this has not been done while the arms and shoulders were being disengaged. The principal attendant needs both hands for service without attempting to support the child. The body should be carried well forward and entirely out from between the thighs of the mother and out of the way of the vagina. The next effort should be to reach the mouth of the child and get a finger or two into it; with only the neck at the outlet the hand can be shoved well under it, and over the floor of the pelvis into the hollow of the sacrum and up to the face of the infant. There are two objects in getting a finger into the mouth: the first is, to use the lower jaw as a point of traction to bring the face forward toward the outlet of the vagina, while the occiput turns back under the arch of the pubes. The authorities tell us that it is better to reach still further up and get a finger on the upper jaw, and make traction forward from that; to which the writer asks to be allowed to differ, and for the reason that it closes the mouth. And here comes in the consideration of the other object to be accomplished by getting into the mouth, about which, so far as the author of this knows, there is nothing in print in the authorities.

There is somewhere in the legends of the ancient Christian Church the story of some old saint and miracle-worker, of whom the first alleged evidence of his superhuman powers was in the fact that while still in the womb of his mother he articulated audible praise. If this legend is shaved down to the possible, it may be taken as truth. It would be quite easy to say of a nearly born breech-case baby that it was still in the womb of its mother. Accept this, and the articulate cry is not difficult to understand, and sometimes becomes real. I have encountered two instances of this; it is readily explainable. When the *body* of the child is well out, the chest is free to expand. With the neck at the vaginal outlet the compression on it is slight, and if a couple of fingers are run under it, not directly over the trachea, and the mouth is pulled open, there is no impediment to the entrance of air to the lungs; another channel for the continuance of life than the circulation through the cord is established, and the child makes the first assertion of it before it is free from the vagina. Especially will this cry come if the cord is strangulated above, and perhaps not till then; my impression is that this evidence of independent existence is not declared till the circulation by the cord is interrupted. Now if you have let air into the lungs by getting the mouth open as indicated, the danger of death to the infant from pressure on the cord is past, and the further necessity for special expedition does not exist. But up to this point, and to the end, if you do not get air to the lungs, expedition, from the moment the breech is well out to the *finis*, is of prime importance if you wish a live baby. There should not be an instant of unnecessary delay in the delivery of the child. Not many practitioners are more inclined, as the general rule, to wait on the natural process of labor than the writer of this paper; but waiting on the natural process in cases of breech presentation is the very best way of having a still-born child. The question whether in states of the highest culture and civilization, and among the most refined, intelligent, and religious people, where the constantly-increasing disposition seems to be to reduce the number of new-comers into life to the lowest possible minimum, it is not just as well, and often rather better, that the child should go out of life before its independent existence is established, it is not in the intention of this article to consider. The object of the paper is to endeavor to show how, if the death of the child is to be avoided, it can best be done.

As to the management of the cord. It often happens, when a breech-coming child gets along so far as the umbilicus, that the funis prolapses. We are told to put it back. Now, what does the putting back into the vagina of the prolapsed portion of the cord amount to? As stated, it is not in the lower part of the vagina, and certainly not outside of it, that pressure on the cord is to produce strangulation of it and asphyxia of the child, but at that part of the passage where the head is. Pressure on the cord takes place somewhere in that part of it which is above the umbilicus and up to the placental insertion, and not in that portion which has come down. The portion which has come down is out of the field of pressure, and is safer there. There must of necessity be an amount of cord between the navel and the placenta, running up alongside the head, and in this is the point for mischief. Now what is desirable, what is sometimes feasible, is to place this portion of the funis where it will be the least liable to hard and continuous squeezing: that place is the side of the head, the point where the diameter of the skull is least, and where it is not so tightly crowded against the pelvic wall. It is where you would introduce the blade of a forceps if you essayed delivery by that method. Where you can introduce a forceps blade on each side of the head, there is room to introduce the fingers on *one* side; and if you can do this, and place the cord so that it will not get between the forehead or the back side of the head and the pelvic wall at a point where the diameter of the head is largest, you have done something to lessen the chances of pressure and strangulation. This can sometimes be done, but not always; it is about the only thing of avail in that direction.

I have thus endeavored to indicate what has seemed to me, in the general way, the best line of procedure in what may be called a normal case of breech presentation. Of course there is always the liability of extra complications; there is the not very remote possibility of the suspension of all uterine action; in which case you would endeavor to restore it by the same efforts you would make in the case of a head-first birth. There is the possible complication of an abnormally large head, though this is but rare, for where there is a large head there is usually the large body to precede it and open out the way. There is the chance that the chin of a child comparatively large to the diameter of the superior strait will become locked over the pelvic bones, and the head may have to be broken down by entering it at the base of the skull. There are other complications, the existence of which will render it nearly, and sometimes quite, impossible to get a live-born child; but of these it was not the purpose of this paper to enter into the particulars. Any one of the complications liable to be met with, would be worth a separate discussion.

And here it will likely be asked, if a living child is always to be expected as the result of following any line of action that can be laid down? There is nothing any better for the physician to take along with him to the attendance of a baby case than an *expectation* that it is coming through all right; it is vastly better than a bag of instruments, though the instruments are occasionally (mark the word) useful to supplement the expectation with. But that the expectation of a living child in every instance of normal breech presentation is to reach fulfillment is too much to look for, no matter what you may do or attempt to do in the case. Men of larger experience in obstetric proceedings than the writer of this paper, men more dextrous in manual manipulation, more thoroughly posted in the theoretical and perhaps practical science of the thing, and more thoroughly up in the art of it, come out of breech cases with a large percentage of dead babies; and the fact is no impeachment of the high standard of their abilities. The chances are as good as one in three that the next breech-born child that is aided into the world by the man putting ink to this paper will be dead before it comes along.

The reader will see that this is not a scientific treatise on the matter in hand, such is commonly put in books. The natural mechanism by which the head of the child is turned while in the pelvic cavity, and its relations in different positions to the different sides of that cavity, are laid down by the eminent authorities, and are in easy reach. The purpose has been simply to indicate something which might be of practical worth in the personal management of a case in hand, and especially to point out the danger of delay in trying to assist nature through the job.

ROCKY HILL, CONN., December 10, 1886.

PERMANGANATE OF POTASSIUM IN THE TREATMENT OF MENSTRUAL DERANGEMENTS.

BY W. P. ELLIS, M. D.

So many conflicting reports concerning the action of the permanganate of potassium in the treatment of menstrual disorders, especially the amenorrhea of young girls, have appeared in the different medical journals during the last few years, that I am constrained to give, for the benefit of those who have not as yet given the remedy a trial, the results that have followed its use in a number of cases occurring in my practice within the past three years. Many eminent therapeutists, both of this country and Europe, have accorded it its just meed of praise, while others, equally eminent, characterize it as a "snare and a delusion." It is important in questions of this sort, when equally good authority is arrayed upon either side, that facts bearing upon the question in the possession of isolated members of the profession should be duly collected and classified. Since this new use of the drug was brought to the notice of the profession by Drs. Ringer and Murrell, of London, the various medical journals have from time to time contained flattering reports of its use in menstrual disorders, but as yet comparatively few physicians have given it a trial, and it is important that those who have done so shall report the results of its use, be they favorable or unfavorable, in order that just conclusions concerning its value may be formulated. The chemical objection to the remedy, on the ground that it is "decomposed with great certainty and rapidity by organic matter in the presence of an acid," is in reality no objection at all, since the beneficial effects of the drug are due to the manganese and not to the potash in the salt. In fact, it is given with a view to this decomposition, and as being the most convenient way of administering manganese. This is proved by the fact that other compounds of manganese have been found almost, if not quite as efficacious. The binoxide of manganese and the manganate of sodium act in a similar manner to the potassium salt, not as a general tonic, as has been suggested (for in many cases the anemic condition is not improved in the least with the re-establishment of the flow), but for its direct tonic and stimulant effect upon the uterus and its appendages.

As to the bad effects which are said to occasionally follow its use, such as great prostration, rapid and weak pulse, severe burning pain in the stomach, etc., these are due to its rapid decomposition in a comparatively empty stomach, and may be prevented by the patient's swallowing a tumbler of water or milk, preferably the latter, immediately after taking the medicine. In all the cases in which I have given the permanganate, I have insisted upon this precaution being taken, and, with a very few exceptions, there has been no complaint of the severe gastric pain, and none of the symptoms of shock and collapse which have been said to so frequently follow its administration. As to the method of exhibition, I have found the pill form to be the most eligible, and those put up by the manufacturing chemists are more reliable than those made by the local apothecary, because they are so guarded by excipients as to be less liable to chemical decomposition. I have used, of late, the one-grain pills made by Parke, Davis & Co., and have found them in every way reliable. Following is the report of two cases to the point:

CASE 1. On the 18th of January, 1883, I was consulted by Miss M., a pale, anemic girl of seventeen. She had been suffering from irregular and painful menstruation for almost a year, and for three months prior to her visit she "had seen nothing." After a trial of the usual domestic remedies she came to me for treatment. She was a good specimen of a chlorotic girl, presenting the usual symptoms of capricious appetite, dry cough, torpidity of the liver and bowels, nervous chills, and general *malaise.* For the anemia I prescribed Basham's iron mixture in doses of a dessertspoonful with strych. sulph. gr. $\frac{1}{30}$, three times a day, and daily exercise in the open air when the weather should permit; for the amenorrhea I gave the following:

Tinct. ergotæ……………………………ʒij;
Decoct. aloe. comp………………ad ℥viij.

M. Sig: ℥j night and morning.

Under this treatment, in six weeks, there was slight improvement in the patient's general health, but the uterus showed no disposition to resume its arrested function. In the meantime my attention had been called to the permanganate of potassium in cases of this character by the article of Drs. Ringer and Murrell, published originally in the London Lancet, and reprinted in the Louisville Medical News of February 24, 1883. I at once determined to try the remedy in the case of Miss M., and accordingly the next time she presented herself I gave her the following:

Potas. permanganat……………grs. xvj;
Aquæ destil………………………………℥ij.

M. Ft. sol. Sig: A teaspoonful in a wine-glassful of water three times a day.

This I directed her to use while continuing the tonic mixture, and should the catamenia show itself at any time, to report immediately to me.

On the evening of the fourth day after beginning this treatment, Mrs. M., the mother, came to tell me that her daughter had that morning become "unwell." I advised her to continue the medicine during the period; this she did, and the flow lasted three days. After this menstruation recurred regularly, and under the tonic regimen, with regular out-door exercise, she was soon restored to her former health and spirits.

CASE 2. In May, 1885, Mrs. R. J., a widow, twenty-seven years of age, mother of two children, the younger five years of age, while going from the railway station to her home, a mile away, was caught in a sudden shower and completely drenched. She took a severe cold, and her menses, which were on at the time, were arrested. She made use of the usual domestic remedies, but did not succeed in re-establishing the flow, and at the next menstrual period, there being still no sign, she came to me for advice. As she seemed in perfect health in every other respect, complaining only of a slight uneasiness, scarcely amounting to pain, in the back and loins, pregnancy being entirely out of the question, I gave her a dozen of Parke, Davis & Co's. one-grain pills of permanganate of potassium, which I happened to have in my office at the time, and instructed her to take two pills night and morning until the flow was established or the supply exhausted. I did not see her again for two weeks, when she informed me that the catamenia made its appearance after the taking of eight of the pills, and continued for the usual time. On the day preceeding the next period she took the four remaining pills with very excellent effect, since which time she has experienced no further trouble.

These are only two of quite a number of cases that have fallen under my observation, and which I have treated with potassium permanganate. I have selected the above for report because the results obtained in each were convincing, and could be attributed only to the drug. My case-book contains notes of thirteen cases, in which the results were all, or even more, than I could have expected. In three only was there any of that severe gastric distress after the taking of the permanganate, which is the chief objection to its use, and in each of these the symptoms were relieved by increasing the quantity of milk ingested after each dose. My experience with the drug warrants the conclusion that it is a safe and efficient emmenagogue, acting almost equally well in amenorrhea from any cause, and deserving of a more extended use by the profession everywhere.

LIVERMORE, KY.

THE CARE OF THE SKIN.

A Lecture Before the Y. M. C. A. Lyceum.

BY J. CLARK M'GUIRE, M. D.
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That we may better appreciate the importance of the proper care of the skin, it is well to know something of the anatomy and physiology of this, one of the most important and complex organs of the body.

It is practically divided into two parts, the outer cuticle, scarfskin or epidermis, and the deeper true skin or corium. The epidermis is subdivided into the corneous layer, composed of flat, lifeless, colorless cells, and the malpighian layer (so named from the anatomist Malpighi), of irregular shaped cells, developing to replace those of the outer layer that have been cast off. The true skin or corium (from the Latin *corium*, leather), is divided into the outer papillary layer, made up of little elevations called papillæ, intended to give a greater amount of surface to the skin. It has been computed that there are about one hundred and fifty millions of these over the whole body; below this is the reticulated layer (from the Latin *reticulatus*, net-like or latticed), made up of elastic interlacing fibers, the meshes of which become larger and larger until we reach the subcutaneous tissue which connects the skin with the parts beneath. The corium is well supplied with blood vessels, lymphatics, nerves, glands, and hairs. The arteries from below send off little capillary loops, which ascend in the papillæ, then descend to become veins; they are called capillary from the Latin word *capillaris*, like a hair, they are so small and slender. Some of the nerves send off prolongations that become lost in the deeper cells of the epidermis; others enter the papillæ to wind around and penetrate little bodies called tactile corpuscles. There are two varieties of glands, the sudoriparous, and sebaceous glands; the sudoriparous derives its name from two Latin words, *sudor* (sweat), and *pario* (I produce)—they are made up of tubes twisted in the form of a coil in the lower part of the corium, with a duct ascending through the entire thickness of the skin to open upon its surface; they are most numerous on the palms of the hands, where there are about two thousand seven hundred to the square inch, or about two million three hundred and eight thousand over the whole body, an entire length of secreting tubes of two and one third miles. The sebaceous glands are made up of a mass of lobules, with a tube that usually enters a hair follicle.

The *hairs* are regarded as modified epidermis. Almost the entire skin is provided with these appendages, except the palms, soles, and some other parts. They receive their nourishment and grow from the hair papillæ which they surround in the corium. The total number on an average head of hair is said to be one hundred and twenty thousand. They are elastic, stretching about one third their length, and will support a weight of about two and a half ounces. In some cases they may grow to great length and in unusual quantity. As to blanching of the hair in the course of a few hours, there are but few well-authenticated cases; in one mentioned in Flint's Physiology, the hairs turned white in the course of the night, in a patient under observation at a hospital; he was suffering with delirium tremens. The blanching is caused by the accumulation of air in the medulla and cortex of the hair, there is no diminution in the amount of pigment. Sir Erasmus Wilson has reported the case of a young woman in whom the hairs covered almost the entire surface of the body, and were thick enough to conceal the skin. Cases are reported in which the beard grew to the length of seven or eight feet.

So much for the anatomy of the skin. It is usually regarded simply as a covering for the parts beneath, and to give shape to the form, but, as has been seen, it has functions peculiar to itself. It is an *organ of sensation*, especially of touch. This sense can be cultivated to a wonderful degree. We may see this exemplified at the blind asylum, where the inmates are taught not only to read, but to study geography, botany, and anatomy by means of models, through this sense alone. It has been related of a blind sculptor, that he could model the most perfect likeness simply by touching the face, and of others who could even tell the color of objects in the same way.

It is an *organ of absorption*; gases as well as liquids are taken up by the skin. This is shown in the case of animals whose bodies were subjected to carbonic-acid gas, their heads remaining free. Death from the poison soon resulted. The power the skin has of absorbing fats and oils is taken advantage of in the treatment of many diseases. Shipwrecked sailors have relieved their intense thirst to a certain extent by saturating their clothes with the salt water.

The skin is an *organ of secretion*. Sweat is constantly poured out in the form of insensible perspiration, in amount about two pints or pounds in twenty-four hours. It has a saline taste, and is alkaline in reaction; composed almost entirely of water, it regulates the temperature to a great extent by the amount that is secreted. In the functional disorder of the sweat glands, known as bromidrosis, it has an offensive, disgusting odor, that will render a patient not only a burden to himself, but repugnant to every one with whom he comes in contact. It is said of Henry IV, of England, who suffered from this affection, that the ladies of his court would faint from the offensive odor when in his presence. Professor Hammond relates the case of a woman who exhaled the odor of violets during an attack of hysteria. In another functional disorder of the glands, known as chromidrosis, it may be colored black, blue, or red, or it may become phosphorescent; the body then becomes luminous in the dark. The secretion from the sebaceous glands, known as sebum, is a semi-fluid substance containing fifty per cent of fatty matter, and is intended to give softness to the skin. The so-called "flesh-worms," or "grubs," are really masses of sebum which clog up the follicles; the little black-heads are caused by an accumulation of dirt and pigment.

It is an interesting fact, that if animals are covered with an impermeable substance, death will soon ensue. It is related that a child's death was caused at the coronation of Pope Leo X, by being covered with gold-leaf to represent an angel.

Considering the important functions the skin has to perform, and the harm that will result from the non-performance of these functions, the importance of its proper care can hardly be overestimated. It is true that "beauty usually produces love, but cleanliness will preserve it." Cleanliness is absolutely essential to the correct performance of the functions of the skin and the preservation of the general health. The dust, secretions, and the cast-off epithelial scales must be removed by frequent washing. This brings us to the subject of baths and soaps. The ancients indulged more freely in the bath than is the custom with us. The Romans especially fully appreciated the pleasures and necessity of the bath, and indulged in it to excess. They erected magnificent buildings, supplied with all the requisites for hot, cold, and vapor-baths. From the ruins, as we now see them, we can form but an inadequate idea of their splendor. Buildings, including libraries, gymnasiums, and baths, were free to the public. Women have endeavored to beautify their skin by bathing in milk and scented waters. To such an extent was this carried in Paris at one time, that there was great scarcity of milk for the table. I know of a well-known *prima-donna* who uses a quart of cologne in each bath. Turkish baths I do not believe are necessary for a healthy skin. Any of you gentlemen who propose to indulge in this *luxury* should postpone reading Mark Twain's experience till you have tried it for yourselves. I am sure you can then better appreciate his advice to the attendant to use a jack-plane as a much simpler method of getting rid of the skin, which seemed to be the object of the bath.

Time will not allow me to say any thing further as to the use of the bath than to advise you, after a cold bath, to use brisk friction with a towel, not only to further cleanse the skin, but to excite the cutaneous circulation, and so draw the oversupply of blood from the internal organs. Those suffering from heart troubles should abstain from the use of the hot bath, as the heat will cause a determination of blood to the surface, and so deprive the heart of its normal supply. Soaps, as you know, are made of fats or oils and soda or potash caustics, according as they are hard or soft. Their efficacy depends upon their power of rendering grease and *débris* soluble in water. Only the best soaps should be used for the toilet, as the cheaper ones are often found to contain deleterious ingredients. In specimens I have examined, by means of the microscope, I have found little particles of bone and other foreign matter. Of course these will render a soap highly irritating to the skin.

There is a popular error that soap should not be used upon the face. There is no good reason for this belief; in fact, it is more important on the face than elsewhere. Not only is the face the most exposed portion of the body, but there is a greater amount of secretion here than elsewhere on the body to catch the dust. It has been said that country girls wash their faces and do not have acne. City girls abstain from the use of soap, and do. Though this is exaggerated, I have met with cases that have been aggravated by neglect of this part of the toilet.

There is an old saying, "Women who paint their faces to seem beautiful, do early deface the image of their Creator;" and yet they will frequently resort to any means that hold out the least hope of improving their complexions, such as plastering their faces with paste, enameling, binding it in raw beef, and even wearing medicated masks. The purpose of most of these applications is simply to conceal repulsive blemishes, which, in the majority of cases, could be readily removed by appropriate treatment. Such methods can only do harm; for if they do not directly injure the skin, they make it tender, and much more apt to be affected by external agencies. To make their hands white and bloodless, women have been known to spend the night with them suspended by means of pulleys.

I am frequently asked, are dusting powders harmful? Most of them are, for they are liable to contain lead, bismuth, or other deleterious ingredients. Plain starch or magnesia are the least harmful. I advise against the use of any of them, as they will clog up the openings of the glands, and so are apt to prevent the performance of their proper functions. If the face is abnormally greasy, a little sulphate zinc in water and alcohol, as a lotion, will be found of benefit. "Lotions for the toilet," as found in the shops, are liable to contain mercury. This may be absorbed and produce symptoms of constitutional poisoning. What is known as "flake white" is made by mixing carbonate of lead with rose-water. Cases are not infrequently reported of women who have been poisoned, showing symptoms of the constitutional effects of the lead. Some of the symptoms are delirium, abdominal pain, a peculiar drop of the wrist, and a characteristic blue line along the edge of the gum. The study of skin diseases is sadly neglected, though its importance is recognized and exemplified in the vast number of cases reported by even a few specialists. Members of the American Dermatological Association, in 1885, reported sixteen thousand eight hundred and sixty three cases. Twenty thousand new cases are said to occur in one year among the poor of New York City. Prof. Bulkley, of New York, has published a book of two hundred and fifty pages upon one disease alone, known as "Acne."

I will now give you a few hints upon the treatment of several minor affections of the skin. The little "black-heads," papules, and pustules that frequently appear on the face in young people are best treated in the following manner: The papules and pustules should be opened; the face is then to be bathed in hot water, as hot as can be borne. The black heads are to be removed by means of a watch key, or squeezed out between the fingers. A powder composed of sulphur, one dram to the ounce of starch, dusted on the face at night will be found of benefit in some cases. The annoying complaint known as *rosacea*, popularly known as "rum blossom," so called, perhaps, because the majority of cases are NOT caused by stimulants, is characterized by redness of the nose and cheeks, with dilatation of the blood-vessels. The disease may last indefinitely and cause hypertrophy of the nose, till in rare cases it may grow as large as the fist. Its causes are numerous, as digestive disturbances, nervous troubles. Alcohol is only one of many causes. It is more or less common in those subject to sudden changes in temperature, as hack-drivers; it may be aggravated by certain articles of food, as fried articles, tea, coffee, etc; it is apt to continue indefinitely unless properly treated. Hot water applications will do good in many cases, and a lotion composed of sulphur, fifteen grains, glycerine, one dram, rose-water, one ounce, used several times a day. Operative procedures may be necessary.

Bromidrosis may at times be relieved by means of a dusting powder composed of half a dram of salicylic acid to the ounce of starch, or by means of a lotion of permanganate of potash, a grain or two to the ounce of water. The socks must be soaked in this solution, then dried before being worn.

Discolorations, such as freckles, and so-called "liver spots," should be let alone, for even if they are removed by strong stimulating remedies, the chances are decidedly in favor of their return.

Dandruff is best removed by paying strict attention to cleanliness, removing the scales by means of soap and water, and then by using a stimulating application, such as half an ounce of tincture cantharides to the ounce of bay rum. This is an excellent application for premature baldness.

Itching of the skin, or pruritus, may accompany many different diseases, but it may occur as the sole disorder. Very little can be done in the way of home management for this disease. A weak solution of carbolic acid, a few grains to the ounce, or alkaline baths, composed of a dram of bicarbonate soda to the pint of water, may be tried.

Many of you are familiar with the annoying affection known as *urticaria*, nettle rash, or hives. It is characterized by the sudden appearance of white or red elevations of the skin, accompanied by the most intense itching. It is caused by gastric disturbances, by the ingestion of certain articles of food in some individuals, such as fish, berries, shell fish, nervous disturbances, etc. As to treatment, if caused by indigestion, emetics and aperients should be given; locally, vinegar and water, whisky, alkaline baths, and carbolic acid lotions, a few grains to the ounce, may relieve the itching.

It is well known that many *dye stuffs* may cause inflammations of the skin and even constitutional poisoning. Colored stockings have been found to contain poisonous quantities of arsenic and antimony. I have seen many cases of eczema produced in this way in those who are predisposed to the disease, not only from colored stockings, but from the red lining of gloves, hats, and shoes, and colored underclothing. In the latter case they were worn before being washed. The condition of the skin is very similar to that produced by poison oak. The treatment consists in removal of the cause and the application of soothing remedies.

Hair-dyes, as a rule, are harmful. They may not only cause baldness from the lime, lead, or silver which they contain, but the lead may be absorbed and act injuriously on the system. The confidence with which a bald-headed man will use a hair restorer, recommended by a bald-headed barber, has been referred to as a sublime example of faith-cure. Read the experience of Tittlebat Titmouse in "Ten Thousand a Year," and I am sure you will hesitate before using hair-dyes.

The Massachusetts State Board of health has had a large number of so-called hair restorers, now on the market, analyzed. It was found that all that were examined contained lead in varying quantities. Ladies suffering from *hirsuties*, or an abnormal amount of hair, will resort to any means to get rid of this blemish. They usually shave or extract the hairs, but this only acts as a stimulant to renewed growth. So-called depillatories are worse than useless. They contain ingredients that have the power of dissolving the hair; but, if we remember the anatomy of the skin, it is evident that it is impossible for them to reach the papillæ, from which the hair receives its nourishment, without destroying the whole thickness of the skin. The only means by which the hairs can be permanently removed is the method now resorted to by dermatologists, known as electrolysis. A fine needle is inserted into the hair follicle down to the papilla, which is destoyed by the passage of an electric current from the negative pole of a galvanic battery. Five thousand hairs have been removed from a lady's face by this means, resulting in permanent relief of the trouble.

The habit of cutting the hair and wearing a wig is not to be advised, for the advantage derived from the cutting is often more than counterbalanced by depriving the hairs of light and air which are necessary to their healthy growth. I would sum up this whole question by the advice: keep as clean as possible; remember the aphorism, cleanliness is next to godliness; abstain from the use of any local application, unless it is absolutely necessary, but on the other hand the injurious use of the bath for the purpose of cleansing the skin may be followed by an irritable and abnormal condition of the cuticle.

In closing my lecture I desire to make a few remarks upon some popular errors in regard to skin disease. The majority are regarded as contagious, and the fear is expressed that those who come in contact with the afflicted are liable to become affected; but this is far from the truth, for out of the hundred or more diseases that may affect this organ only two or three are really contagious. The laity believe that as a rule cutaneous diseases result from "bad blood," the impurities of which find exit through the skin, and in so doing take the form of an eruption. Consequently it is harmful to remove them. I have had patients express themselves as very solicitous about the sudden cure of a disease of the skin; the consequence, in their opinion, might be disastrous by the "driving in" of a disease that might attack some internal organ. Nothing could be more absurd, for it is absolutely impossible in this sense to either "drive in" or "drive out" a skin disease. The blood has little to do with skin diseases. There are diseases as peculiar to this organ as to any other, entirely localized, depending upon changes in the tissues themselves. Others are caused by parasites; still others by nervous disturbances. It is evident that the much lauded "blood purifiers" for cutaneous diseases are, to say the least, useless. A patient may get well while taking these quack nostums; the fact is then extensively advertised. This is about on a par with the announcement of lottery companies of the fortunate individuals who have obtained prizes; the tens of thousands who are not so fortunate are never heard from.

LOUISVILLE.

Societies.

CINCINNATI ACADEMY OF MEDICINE.

December 5, 1886.

Dr. E. S. McKee reported a case of cyanosis from malformed heart:

April 22, 1881, I was called to attend a woman in labor. The delivery was without note, but the child showed marked evidences of cyanosis. This disappeared on the second day. Upon the third day a messenger called me in haste, saying, "The baby is queer; has convulsions, and don't notice any thing." The convulsions, of course, were over before I could get there. The child then had the thrush, from which it recovered, but seemed to suffer from an ill-defined trouble. On the fourteenth day it lay perfectly still, most of the time upon the right side. The cyanosis reappeared, especially in the fingers, toes, and lips. Died on the fifteenth day.

Autopsy, fourteen hours after death: Head somewhat enlarged; calvarium and meninges healthy. Both lateral ventricles were filled anteriorly with clear serum, posteriorly with puriform and softened brain matter. Each ventricle was distended one fourth of an inch. Third ventricle also distended, but the *iter a tertio ad quartum ventriculum* and fourth ventricle were nearly normal. Choroid plexus and other parts nearly normal. On the under surface of the brain the pia mater covering the pons, cerebellum, and medulla was covered with flakes of lymph. No sign of tubercle could be found. Lungs normal. Heart: No excess of fluid in the pericardium. Organ of normal size, but upon examination the right auricle was found a little enlarged and the left auricle small internally, but admitting the pulmonary veins. Internally the valves were all normal. The septum between the ventricles was incomplete in its upper part, and led into a common artery reprsenting the aorta, closed by three normal semi-lunar valves. The orifices of the two coronary arteries lay behind the two anterior valves. Both ventricles normal. Foramen ovale normal, but closing. The remains of the pulmonary arteries consisted in an upward prolongation from the right ventricle, and a tube which opened above into the aorta was separated from the infundibulum below by a membranous septum. The aorta passed upward one half inch, and divided into two branches, the right, the larger, going above the right bronchus, having hooked beneath it the right recurrent laryngeal nerve to gain the right side of the vertebral column. The left passed above the left bronchus, curved downward, and became the descending aorta. From the right arch ascended the common carotid and the subclavian in the order named. That on the left gave off the innominate, which in time gave off the common carotid and the subclavian. It then continued as a large artery, corresponding with that on the right side, but smaller in caliber, terminating behind and below the bifurcation of the trachea in two parts, each subdividing into numerous branches, carrying the blood-supply to each lung. No trace of the ductus arteriosus could be found. Other viscera normal.

The mother of this child was markedly strumous, which is given as a cause of this malformation. She could recall no fright which could have been charged with the causation of the trouble.

In the majority of cases, where a *post-mortem* examination is made, the pulmonary artery is found to be either obliterated or greatly lessened in its caliber, and the septum ventriculi is absent in its upper part, allowing the two ventricles to open into one common artery. Clubbing of the fingers and toes is noticed, especially in those who have lived for some time.

Dr. Norman Moore, pathologist to St. Bartholomew's Hospital, has made microscopical examination of these clubbed members, and reported his findings to the Pathological Society of London. He finds it due to engorgement and slight thickening of the walls of the vessels. Cyanotic females who live to maturity, and a few who attain adult age, do not have the flow of the menses until late; the youngest on record is sixteen years. One cyanotic woman was on record as having borne two children.

CONGRESS OF GERMAN PHYSICIANS AND NATURALISTS.

THE ANTAGONISM OF MORPHINE AND ATROPINE—(Dr. Lenhartz, of Leipzig.) For several centuries the antagonism between morphine and atropia has been with equal positiveness affirmed and denied. Dr. L. thought that by the relation of these cases of acute morphine poisoning he might aid, to some extent, in deciding the question whether one is justified or not in the treatment of this class of cases with the sulphate of atropine. The first case was that of a healthy, strong man, who, after swallowing one grain of morphine, fell sick, with coma and arrested breathing. In eighteen hours he received $\frac{1}{150}$ of a grain of atropine. The same ill conditions, however, continued.

In the second case the patient was overtaken with the severest form of coma after the injection of one half a grain of morphine; two hours later he had $\frac{1}{200}$ of a grain of atropia. The quick pulse became at once more rapid and increased to threatening heights. The patient died.

In the third case the patient took a number of morphine powders of about one sixth of a grain. Breathing was arrested, and notwithstanding the injection of $\frac{1}{150}$ of a grain of atropia, no material change occurred. Resort to artificial breathing first brought the respiration to normal frequency and to natural rhythm.

These cases, therefore, do not favor the treatment by atropine. It occurs to Dr. L. that success is far more likely to be attained by simple methods of treatment, especially the cold water douche.

On looking over the literature of the subject Dr. L. had been astonished at the great number of cases of morphine poisoning which proceeded to a favorable termination without atropine. These facts weigh heavily against judgments of the value of antidotal treatment.

Johnson, of Shanghai, who had observed a large number of cases of opium poisoning, commends the antidote enthusiastically, and gives very large doses of atropine (one grain). When we take into consideration, however, that he was nevertheless not able to avoid the loss of a large number of cases, this enthusiasm must be largely discounted. Johnson, by the administration of atropia, is not able to rescue a purely uncomplicated case of opium poisoning, notwithstanding he may have a working period of from five to fifteen hours. His declaration that his patients perish from convulsions and exhaustion is unsatisfactory.

From the examination of one hundred and thirty-two cases of morphine and opium poisoning which Dr. L. had collected, it resulted that convulsions were present with uncommon frequency, namely, in 22.7 per cent; but only in one third of these cases did death occur with severe tetanic phenomena.

It is altogether wonderful that the severest cases of poisoning should have been cured by the smallest doses of atropine, $\frac{1}{2800}$ to $\frac{1}{150}$ of a grain.

But outside of the wide range for dosing, which is so much to be condemned, there is also the uncertainty of the indications to censure. Johnson urges the administration of atropine in every severe case in spite of a weak irregular pulse. Wood, on the contrary, lays the greatest stress on the condition of the respiration, while Binz hesitates greatly to prescribe the antidote where there is already a small quick pulse. This hesitancy is peculiarly sustained by deaths from acute morphine and opium poisoning, where atropine has early enough been exhibited for a favorable result to be attained.

Of the one hundred and thirty-two cases of poisoning, fifty-nine treated with atropine gave a mortality of twenty-eight per cent, while of seventy three cases treated without any antidote, only fifteen per cent of deaths occurred.

Finally a direct injury is produced, evidently by the atropine, which renders it incumbent to be well on the alert in regard to this antagonizing treatment. Binz sustains himself in recommending this treatment, principally by his experimental investigations; while in his view the experiments of Penzoldt, Rossback, and others have yielded negative results. Binz considers that he is able to draw positive definite conclusions in favor of the practice from his observations. But his experiments with animals are, according to Dr. L.'s opinion, not at all applicable in the treatment of men, because he had employed too small doses, inasmuch as he had never produced severe poisoning but only sleep in the animals, and then undertook the testing of the atropine. Binz gave the animals only .029-.05 morphine per 1000; the speaker, however, had seen dogs after the injection of 2½-3-5, and even after 7 grains of morphine, recover without any atropine at all, and only from cases of poisoning similar to those one will meet with in practice can a trustworthy conclusion be drawn as to a remedy. In eighteen cases of poisoning in dogs, the lowering of the blood-pressure only reached a certain degree, and then was not increased, so that life was not therefore endangered. Death did not result in consequence of the lowered blood-pressure on the impaired respiration, but the animals died in consequence of the very numerous convulsive and tetanic attacks, and the central exhaustion produced by them.

Of eighteen animals poisoned experimentally, eight were treated with atropine without the least result. A certain strengthening of the blood-pressure, it is true, occurred in many cases, but life was in no instance prolonged thereby; in two cases Dr. L. had constantly the impression of cumulative effects.

Dr. L. can, therefore, neither from his experiments on animals nor his clinical cases, sustain the antidotal treatment.

Dr. Freimuth, of Danzig, had had the rare opportunity of observing in the city hospital a case of poisoning with both morphine and atropine at the same time, and which had a favorable result. An apothecary twenty-three years old, on account of a charge of pederasty, swallowed a dose of seven and a half grains of morphine, and at the same time three quarters of a grain of atropine. Dr. F., on examination, found the patient pale, cyanotic, with rapid pulse, pupils dilated, and deep coma. By treatment with the faradic current, and later by employing artificial respiration, he succeeded in bringing the patient so far that complete reaction occurred—the first appearance of reaction appearing with active delirium.

Dr. F. is of the opinion that if both poisons had not been taken at the same time the case must have taken a fatal course.

Dr. L. Lewin affirmed that the favorable influence of atropine upon the blood-pressure, advocated years ago by Binz, had been directly confirmed by himself. The favorable influence of atropine upon the impaired respiration is conceded also by opposers of its antidotal influence, such as Wittowski, of Strasburg, and others. It is required of an antidote that it shall render inactive the poison which has been taken; but an actual life-saving influence is to be expected only in a comparatively small number of cases, because the circumstances of each particular case of poisoning are extraordinarily varied.

Nevertheless, under this treatment, determinate recovery and symptomatic improvement are not rare. The fact that atropine, in many cases of morphine poisoning, fails to serve is as little a matter of wonder as the failure of many approved remedies in certain diseases. Poisonings from acids and alkalies sometimes also take a favorable course without neutralizing chemicals, and in others death occurs in spite of them—nevertheless we feel obliged to administer the corresponding antidote.

According to Dr. L.'s view, it is the duty of every physician, in a case of morphine poisoning, to administer atropine, if only upon the basis of clinical and pharmacological matters, in the hope of bringing the blood-pressure into a favorable state; and in consequence thereof to restrain as much as possible the impairment of respiration or to avoid it altogether.

In poisoning by morphine the conditions for slight absorption in the stomach are present. Otherwise a relation exists between poisoning by opium and aconite. This poison attaches itself in the smallest particles to the walls of the stomach, adheres there, and maintains for a long time a continuous activity. Atropine in such cases should be given in small doses and continued for a long time, because of the slower absorption of the opium.

The emptying of the stomach is in all such cases of the greatest utility.

Dr. Lenhartz replied that he had by no means seen a rise of blood-pressure in all cases. Besides this elevation is only brief, and very soon subsides. Binz places himself in opposition to his own teachings. On the one hand he recommends small prophylactic doses of atropine, and yet adduces as evidence the cases of Johnston, in which very large doses had been given. From the administration of an antidote we desire to see not only an elevation of the blood-pressure, but to be assured that it removes the cause of death, and that Dr. L. had never seen, but rather a cumulative action of both poisons. Finally there exist clinical observations that the patient has been directly harmed by the atropine. Emptying the stomach is a measure that would not be neglected in such cases by any skillful physician.—*Deut. Med. Zeit.*

CHICAGO MEDICAL SOCIETY.

Stated Meeting, Monday, December 6, 1886, E. J. Doering, M. D., President, in the chair.

Dr. John A. Robinson read a paper on the Antipyretic Actions of Antipyrin and Thallin, in which he had collected and condensed the results of the experiments of a large number of clinicians. The largest number of observers agree that antipyrin is a safe, efficient, and unobjectionable antipyretic. Contrary to belief in general, it does not have a depressing or debilitating effect on the heart, whereas thallin has. Antipyrin causes no change in the blood, whereas thallin has a deleterious effect on the blood and veins. In conclusion, the author believed antipyrin should always be given to produce apyrexia in cases where the temperature is excessively high. He does not believe the drug has any influence to lessen or prolong the duration of the continued fevers. He also stated that it not only lowers the temperature, but relieves the pain that accompanies acute articular rheumatism with endocarditis, especially if given with alkalies.

Dr. J. J. M. Angear said: I have not given this subject any special study, but the subject of temperature I have, and it may not be amiss to speak of some difficulties which we have to contend against. If radiation is increased or diminished and metabolism remains normal, we have increased or decreased temperature; or if metabolism of the body be increased or diminished and radiation remains normal, then we have increased or decreased temperature. We have no means of arriving at any definite conclusion whether our patient, with increased temperature, is suffering with increased metabolism or decreased radiation, or both. We know, from observation and from various experiments, that the internal part of the body is very frequently hotter than normal during the cold stage of fever, and cooler than normal during the febrile stage. May not the sum total of caloric in the body be diminished when the thermometer tells us that it is increased, and *vice versa?* If we answer, yes, then we are found trying to diminish the temperature when we should be husbanding what we have. Does not this show that there is a certain amount of pathological knowledge in regard to body temperature which we have not yet arrived at? And our therapeutical knowledge is necessarily as defective now in this regard.

Do antipyretics facilitate radiation or check metabolism, or both, or do we know any thing about it except its action upon the thermometer? If we could arrive at some definite, pathological conclusion as regards the pyrexial state of the patient, then we could, perhaps, arrive at some scientific knowledge of the action and use of all antipyretics. Had we an instrument by which to measure the amount of radiation and metabolism, it would be of far greater value to us than the thermometer has been.

Dr. C. C. Paoli said: The paper was well prepared and interesting, but the question arises, do we know any thing about the essential nature of fevers? I answer, no. But we know the effect, if we do not know the nature, and in fevers we generally use remedies to lessen the temperature. I have used antipyrin in only eight cases, two of typhoid fever, two of scarlatina, two of lung trouble. In regard to the fever, I admit that the remedy had an antipyretic effect. In two cases the patients vomited as an effect of taking this remedy. I commenced with ten grains, and it diminished the temperature but did not stop the course of the fever, which lasts usually from five to six weeks. One effect I have found from the use of antipyrin, is the lessening of nervous irritability. In a case of tuberculosis, after using antipyrin I began with quinine, and found it more of a tonic. In the cases of scarlatina in which I used antipyrin I did not observe any favorable effect; it lessened the temperature, of course, but the same effect was produced by quinine.

Dr. H. Gradle said: Although my line of practice does not often enable me to watch the effects of antipyretic drugs in disease, I can speak of the effect of antipyrin in one disease, viz., the dentition fever of infants; which, although not usually serious, is in a great many instances annoying, and in which, when the fever is high, there is a possible danger of convulsions. I have never heard of any drug that will reduce the fever under these circumstances as promptly and with as little disturbance as antipyrin. With a temperature of 103° a child can be rendered quiet in the course of an hour by one dose of four grains, and perhaps a second dose of two grains, and be pacified for the entire night. I wish to ask the author if he has had any experience in the continued use of thallin in typhoid fever, with the effect of aborting the disease? According to some rather startling statements, made several months ago by Ehrlich, it was claimed that it reduced the fever permanently in the course of eight to twelve days.

Dr. G. W. Webster favored the use of antipyrin. He had used it in cases of typhoid pneumonia. One point is the favorable action of antipyrin on the headaches of typhoid fever. One of the most distressing symptoms when the temperature is very high is the severe continued headache and the delirium which always accompanies it. He had not found any other remedy that would have as good an effect in these cases as antipyrin, which always relieved the headache promptly.

Dr. H. T. Patrick said: I am quite partial to antipyrin, and have used it in a number of cases. It will often effectually reduce the temperature when baths and sponging will not. In a case of pneumonia in a child of eight years, I gave antipyrin from the beginning to the end, with good results, except for one day, when I tried sponging instead. The child was sponged off six times in six hours, five to ten minutes each time, without any reduction in temperature. Sometimes cold baths have no effect in reducing the temperature because of a very thick panniculus of adipose tissue. Here antipyrin is indicated. The continuous administration of antipyrin in tuberculosis I have found in a few cases very gratifying. In one case ten to fifteen grains were given every afternoon for a term of ten weeks, with great relief to the patient. His temperature was 103°, and there was prostration and irritability of mind. The antipyrin was a relief to the patient and to his family on account of the improvement in his disposition.

Dr. J. Frank had had a personal experience with antipyrin, having taken it two years before while suffering with typhoid fever. The temperature ran as high as 106°, and quinine had no effect in reducing it. He took antipyrin in 15- and 30-grain doses, first by mouth and then by rectum, with the effect of rapidly reducing the temperature. He has used it in practice in treatment of erysipelas and typhoid fever, but does not depend upon it entirely, giving it when the temperature rises very high. In erysipelas he has always found that antipyrin will reduce the temperature.

Dr. C. W. Leigh said: I have seen antipyrin used in a limited number of cases, three or four, of typhoid fever, and none of the patients were older than twenty-one. In these cases there was a visible decrease in temperature and the delirium was lessened very much.

Dr. J. A. Robison said that he had not pretended to give any thing except the results of the observations of a large number of physicians who had used this drug and recorded their experiences. Also the results of quite a number of experiments of therapeutists, as, for instance, Umbach's experiments in regard to the decrease of tissue waste. I did not try to detail all these different experiments, but attempted to epitomize the well-known actions that have been observed of the drugs. Two of these actions, the increase of heat radiation by the dilatation of small blood-vessels and the decrease of oxidation are the main factors in producing the fall of temperature. Dr. Angear says if we can arrive at some conclusion in regard to the manner in which the drug acts, we can use it. I think we have arrived at a conclusion; these experiments have been carefully conducted, and we have seen that antipyrin actually reduces high temperature without any danger to the patient, and it is only in cases where the high temperature itself is a danger to the patient that its use in large doses is to be recommended. In regard to its use in aborting typhoid fever, I have not tried it except in four cases; one was a boy under seventeen, and another one fourteen. The temperature was about 103°. I gave large doses, and in three days all signs of fever had disappeared. A few days afterward another member of the same family was taken sick, and the antipyrin was used as before, but that patient went through all the stages of typhoid fever. In another family there were five cases of typhoid fever. Two of the family had had the fever, one of them dying; then three others took sick. Antipyrin was given in large doses in all these cases, but it failed to abort the fever in any of them.

Dr. Henry T. Gradle read a paper entitled, Diseases of the Vault of the Pharynx. He emphasized the fact that this region is too much neglected by general practitioners, in spite of the importance and curability of some of the diseases occurring there. According to his experience the best examination can be made by means of a large mirror and a palate hook, and this is facilitated by using cocaine when necessary. He gave the history and symptoms of enlargement of the pharyngeal tonsil, which trouble is often called adenoid vegetations; but as usually seen in this country there are no coxcomb-shaped vegetations, it amounts rather to a uniform enlargement of the tonsil at the roof of the pharynx. The condition is of especial importance on account of the liability of ear disease to which it gives rise. Often reflex symptoms are observed, like asthma, cough, bronchitis, and headache. The tonsil should in every case be removed when enlarged. This can be done by means of the galvano-cautery, but it generally requires many sittings, and the process is tedious. The quickest way is by means of scoops or sharp curettes according to the plan of Trautman. The hemorrhage is never alarming and the pain not very great. The result of the operation is always very gratifying to the patient. The pharyngeal tonsil may require treatment even when there is not much enlargement. Sometimes irritation is produced by the presence of white plugs consisting of bacterial masses in the crypts of this gland, which condition can be removed by the galvano-cautery. In other instances the glandular tissue forms reddened, tender spots at the junction of the lateral walls and the roof of the pharynx above the Eustachian orifices. This condition may keep up inflammatory ear trouble until removed by the galvano-cautery. The speaker further contrasted the relative curability of hypertrophic chronic catarrh of the nasal pharynx with the almost hopeless condition of that form of catarrh in which no lesions are found on careful inspection. In the hypertrophic form of disease he has found nitrate of silver most serviceable. The form of catarrh in which no lesions of any account are found has been attributed by Tornwaldt to catarrh localized in a small recess of the mucous membrane in, or just back of, the pharyngeal tonsil, known as the bursa pharyngea. The speaker has not been able to verify the existence of this bursa, and considers the pit which is sometimes seen with the rhinoscopic mirror in this region as a part of the pharyngeal tonsil. He has followed Tornwaldt's directions to canterize this spot in obstinate cases of catarrh with some little success, but without believing that there is any catarrh limited to this recess. He has seen a few cysts in this locality, but considers them as being formed in the substance of the pharyngeal tonsil and not due to the closure of the alleged bursa pharyngea.

Dr. F. E. Waxham reported a case of pseudomembranous laryngitis, treated by electrolysis. Almost every disease of the human body has been treated by electrolysis, but the larynx has only recently been invaded. It seems probable that stenosis of the larynx from membranous exudation may be reduced by the galvanic current, the false membrane being destroyed or detached. On October 26th the author was called to see a child of eight years, who had been sick nearly a week with membranous croup. She was in the last stages of asphyxia, and all hope of her recovery had been abandoned. An intubation tube was threaded with platinum wire and used as a negative electrode, and introduced into the larynx without difficulty, when respiration at once became easy. The child coughed up considerable soft membrane and ropy mucus and became conscious. The platinum wire was then insulated by passing it through very small wire tubing, and the projecting wire was attached to a twelve-cell McIntosh galvanic battery. A positive electrode which consisted of an ordinary sponge moistened with warm water was placed over the larynx, and a current from ten cells was employed. The current caused some pai · and considerable redness of the skin under the sponge, and was reduced to eight cells and passed for five minutes, during which time considerable mucus and softened membrane were expelled. The tube was withdrawn and the child drank two glasses of milk and passed into a quiet sleep. About two hours later, the respiration having become labored, electrolysis was again performed in the same manner, a current from first eight and then ten cells being employed. The effect of the current was to detach and expel patches of false membrane. No further experiments were made with electrolysis. The child died on October 28th.

It was expected that the galvanic current would have but little effect upon the false membrane, but that it would relieve the swelling and congestion of the tissues. On the contrary, the current had a decided effect in loosening and detaching the membrane, and the secondary effect was to increase the swelling and congestion.

Experiments were made on two rabbits with a view of ascertaining the effect of the galvanic current on the healthy larynx. One was given chloroform, the tube introduced into the larynx and a current from eleven cells passed for five minutes. Some dyspnea followed, which was attributed rather to rough usage than to the effect of the current. This subsided and the rabbit recovered. The other rabbit was given a current from eight cells, and apparently suffered no inconvenience.

The author thought no deductions could be drawn from a single case; that the current might have been too strong, or not strong enough; that possibly it may be necessary to use an anesthetic and employ a current strong enough to verge on cauterization, These points could be decided only after further investigation.

Dr. W. E. Casselberry said: The report is an extremely interesting one, and I suggest that the experiments be carried further, to ascertain if the galvanic current has any effect in softening the false membrane outside of the body.

Dr. Franklin H. Martin said: I have used electrolysis for about three years in the treatment of strictures of the urethra, stenosis of the uterine canal, chronic inflammatory exudations surrounding the uterus, and in fibroid tumors. In listening to this interesting report, the question occurred to me whether the effect of loosening the croupous membrane could be attributed to the electrolytic effect of the current of electricity, or merely to the mechanical effect of the electrode. Electrolysis describes the terms upon which it acts; in the case reported we get no evidence of this action. I should be inclined to attribute any beneficial effect that might have occurred to a counter-irritant effect of the positive sponge electrode that was situated externally. In regard to the power of electricity to dissolve substances similar to the exudate found here, I should judge from my experience that it possesses that power. I have been told that a current of electricity passed through a culture of bacteria had the effect of destroying the life of the germ. May this not explain an action that might be worth considering in similar troubles to the one under consideration?

Dr. J. Frank suggested that if the author had used a weaker current he would have had a better result. In stricture of the urethra five cells of the McIntosh battery, with the fluid reduced one half with water, are used. Twelve cells could hardly be borne on the skin. It would dissolve the membrane and produce inflammation.

Reviews and Bibliography.

A Treatise on Electrolysis, and its Applications to Therapeutical and Surgical Treatment in Disease. By Robert Amory, A. M., M. D., formerly Professor of Physiology in the Medical School of Bowdoin College. 8vo, pp. iii and 207; cloth. Library of Standard Medical Authors. New York: William Wood & Co. 1886.

This is a work of much research and of clever construction, but beyond a description of certain new devices for the generation and management of electricity, and a certain extension of the range of the application of the agent in the treatment of disease, it presents no essential claim to favor above the works in electrical medicine already before the profession.

The wisdom of making it a part of a popular series like Wood's Library can not, however, be questioned, since the author's clear and popular manner of presenting the facts of his specialty will cause many a doctor, who has found Erb and other elaborate works too deep for his comprehension, to take heart and begin anew his studies in this important department of medicine.

The work may be read with entertainment at a few sittings, and will put the reader in possession of every fact necessary to one who does not aspire to specialism in the science. It abounds in well executed cuts designed to give the student a clear notion of the mechanical features of the subject, while the reports of numerous cases to the point make a good showing in favor of the efficacy of the agent in the cure of certain maladies.

The Physician's Hand-book for 1887. By William Elmer, M. D., and Albert D. Elmer, M. D. New York: W. A. Townsend, publisher. 1887.

Of a book that has been before the profession for more than twenty-five years, a recipient of the highest encomiums of the medical press, and singled out for special favor by the power that holds itself responsible for the bodily well being of Uncle Sam's recruits and veterans, the reviewer can find but little to say.

If any of our readers should chance to be unacquainted with the work, we may state for their enlightenment that it is a hand-book of practice, a visiting list, a case recorder, and a ledger combined; that it is full of practical suggestions relative to the diagnosis and treatment of disease; that it contains a complete posological table of old and new remedies; that its spacing for the record of the physician's daily work is of the best order, and that it contains quite as much of therapeutics and the practice of medicine as the average practitioner can conveniently carry in his pocket.

An Epitome of the Newer Materia, Standard Medicinal Products, and fine Pharmaceutical Specialties, introduced and manufactured by Parke, Davis & Co., to which is added a complete property- and dose-list.

This small volume presents the best *resumé* perhaps accessible of the numerous remedies that have of late years been introduced into practice. The house from which it proceeds has marvelously facilitated the testing of various agents with regard to their therapeutive value. A paper-bound copy of the work will be mailed without charge to any physician applying for the same.

Reflex Irritation in Genito-urinary Diseases. By Henry Orendorf, M. D. Louisville, Ky. Reprint.

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Foreign Correspondence.

PARIS LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

At a clinical lecture by Prof. Germain Sée, at the Hôtel Dieu, the subject of asthma was treated of in a most masterly manner. The learned professor considers asthma a pneumolobular neurosis, having its origin in the bulbous portion of the medulla oblongata, depending on exaggerated reflex excitability, innate or acquired, of this organ; the cause of the paroxysms being in the impressive irritations starting from the pneumogastric or vagus nerve, or from the motor nerves of the muscles of inspiration, particularly of the diaphragm. In other words, asthma is a bulbar neurosis, which manifests itself on the occasion particularly of an irritation of the vagus nerve, and finishes always by a tetaniform contraction of the diaphragm (vago-neurosis). M. Sée rejects the term spasmodic asthma, admitted by most authors till now. He believes, on the contrary, to have demonstrated by his work on the subject, the experimental causality of the vago-neurosis, commencing by an impression produced on the sensitive part of the respiratory vagus nerve, proceeding from the spinal marrow on the inspiratory motor nerves, to end in diaphragmatic tetany. Besides neurotic asthma, the author recognizes two other species of asthma: the first is the emphysematic or alveolar asthma, characterized by the predominance of emphysematous dilatation; the second is bronchitic asthma, marked by the exaggeration of bronchial catarrh. Prof. Sée further remarked that he regards bronchitic asthma as a vaso-motor phenomenon, an annex of the primordial neurosis; the vaso-motor influence can alone explain the bronchial hypersecretion, whereas the theory of spasm does not in any way explain the genesis of secretion. Thus it is the excitation, starting from the lungs, which affects at the same time the bulb to produce the tetaniform condition of the diaphragm and the vaso-motor center, equally bulbar, to reflect on the vaso-dilatators of the lungs; asthma is therefore a neurosis by excito-motricity. One of the most important divisions of asthma referred to by the lecturer is gouty asthma. No sign whatever differentiates it from neurotic asthma, but the paroxysms of gout often alternate with those of asthma. *A propos* of gout, M. Sée insists on proclaiming the complete scission of this affection from rheumatism, so called, arthritism being for him nothing more than an archeological curiosity, as rheumatism has passed into the domain of micro-biology. Acute rheumatism is a specific parasitic malady; gout is a uricemia. As regards the therapeutics of asthma, M. Sée has, perhaps more than any other physician, established the great advantages of the iodo potassic treatment over any other in this affection. According to him, all the anti-asthmatic medicaments, with the exception of the iodide of potassium, are empirical. All the different forms of asthma, whether they be arthritic, diathetic or otherwise, are cured by the same remedy, as asthma always presents the same nervous mechanism of pneumo bulbar genesis. It is on this latter that the iodide of potassium determines its action now uncontested. Even in children cure is the rule, but it is not confirmed till after a certain number of years, provided the child is submitted to the treatment without interruption. In this case there is nothing to be feared, the paroxysms cease definitively on the condition that the iodide medication be continued for several years. Large doses of the iodide of potassium (from ʒss to ʒj or more daily) are absolutely necessary for asthmatic adults to obtain a curative effect.

M. Sée summarizes the rationale of the iodide medication as follows: The iodide of potassium exercises a triple respiratory action, it manifestly favors bronchial hypersecretion and thus relieves the bronchial tubes. It favors the central reflex action of the center of respiration in regulating the functions of the vital knot; it diminishes the exaggerated impressive sensibility of the respiratory mucous membrane. The curative medication of asthma, consisting in an iodurated saturation of the lungs, and even of the encephalon, might lead to iodism. When this latter occurs, pyridine will be found useful as a substitute, the most certain to cure the paroxysms of asthma and to prevent their return. Pyridine is administered by inhalations in doses of from four to five grams, three times a day, placed in a saucer in a closed room. In urgent cases, from ten to fifteen drops are poured on a handkerchief, which is applied to the mouth or to the nostrils. The combustion of Indian hemp-papers saturated with niter, determines the production of a pyridinated alkaloid, the action of which, similar to that of pyridine, causes the attenuation of the excito-motor movement of the spinal marrow and the medulla oblongata. The neurotic unicity of asthma (pneumo-bulbar or vago neurosis), and the anti-asthmatic specificity of the iodide of potassium: such are the conclusions of this interesting lecture, and should any of your readers wish to read a fuller account of the subject I would refer them to Prof. Sée's work entitled, "*Des Maladies Simples du Poumon*," in which the lecture has been reproduced.

Can any person contract syphilis twice? This question has been very much discussed among syphilographers since the sixteenth century. Ricord distinctly states that an individual once in possession of syphilis never gets rid of it. Barensprung is of the same opinion, but he adds that, in syphilis, things pass much in the same way as in the acute exanthematous affections; that the patient acquires a relative immunity in this respect. Sigmund absolutely denies re-infection. Zeissl, on the contrary, pretends to have observed it several times, some years after the first attack. According to the *Gazette Hebdomadaire*, M. Neumann had under his care a female patient who was a striking example of syphilitic re-infection. In November, 1883, she arrived at the clinic with large condylomata, and a general swelling of the lymphatic glands. She was cured of these troubles and those that followed. She lately again presented herself at the clinic, with a syphilitic lesion of one of the labia majora, a hard chancre, and a few days after a fever and a maculous syphilitic eruption followed.

The *Revue de Therapeutique* contains a note by Dr. A. P. Kurzakoff on the advantages of employing injections of pilocarpine for toothache, in the form of a solution of ten centigrams of pilocarpine to fifteen grams of distilled water (gr. xv to ℥ss.) This he injects into the temporal region, on the side of the affected tooth. In two cases he injected one eighth of a grain, in a third, one fourth. The pain always ceased permanently about an hour after the injection. In about the same length of time the perspiration and the salivation, determined by the pilocarpine, also disappeared. In one case only, that of a man aged forty-six, affected with rheumatic peri-odontitis and severe pains in the ears, the injections of a quarter of a grain produced copious vomiting, cyanosis, general weakness, and drowsiness. All these symptoms disappeared in about an hour and a half after the administration of twenty drops of the tincture of valerian. The author thinks that this form of medication, so simple, might render great service, and might be extended to other maladies.

PARIS, December 8, 1886.

Translations.

RADICAL CURE OF EPIGASTRIC HERNIAS.—M. Terrier has performed four operations for epigastric hernia.

These four observations demonstrate that surgical intervention is decidedly indicated in these cases. The operation consists in making a radical cure of these hernias as of those in which the operation is classic. Incision, opening of the sac, ablation of useless material, mobilization, reduction, and suture of the ring after freshening the margins, and then union of the skin.

This operation was done, in 1802, by Maunoir, of Geneva. His patient was perfectly cured. A similar operation was done in 1882, by M. Reverdin. M. Terrier cites other instances of the operation as done by foreign surgeons.

He believes, therefore, that interference is indicated in these cases. He has seen troubles of digestion disappear after operation, and other conditions which hinder the patient from labor. He has had to treat in this way fatty, omental, and intestinal hernias.—*Jour. de Med. de Par.*

PATHOGENY AND CURABILITY OF ASCITES IN THE FIRST STAGES OF ALCOHOLIC CIRRHOSIS OF THE LIVER.—Dr. Courtray de Pradel, of Paris, having made a study of the process of invasion of ascites due to alcoholic cirrhosis, concludes that this form of ascites may disappear under proper treatment. This curable ascites is never produced by an intrahepatic involvement of the portal circulation. They owe their existence to a peripheral involvement of this circulation. The lesions that produce this peripheral circulatory entanglement are sclerosis of the veins of the stomach and intestines, thrombosis of these veins, chronic or subacute perihepatic peritonitis. If the sclerosis invades the interior of the liver, then the ascites becomes permanent and incurable.—*Le Progrès Médical.*

SURGICAL TREATMENT OF VESICAL CALCULUS IN WOMEN.—Dr. Curtie-Boyer, in a recent treatise on this subject, in which the present state of science upon that subject is very fully brought out, presents the following conclusions:

1. All things being otherwise equal, a non-bloody operation is to be preferred to a bloody one.
2. For a calculus not exceeding two or two and one half centimeters in diameter, he gives preference to dilatation, unless the calculus has for a nucleus a rough foreign body which will wound the urethral canal during extraction.
3. In case of calculi, even voluminous but friable, in a patient with a normal and tolerant bladder, lithotrity should be done, in certain cases, with the modification of the method of operation.
4. In adult females the vesico-vaginal section should be made when the method by crushing is contra-indicated.
5. In cases of large calculus the hypogastric section should be employed.—*Jour. de Méd. de Paris.*

SOMNIFERINE AND FRANCISCEINE.—Somniferine, an alkaloid extracted from *Methania somniferii*, possesses hypnotic properties. Francisceine, an alkaloid extracted from the root of *Franciscea uniflora*, is at the same time a purgative, a diaphoretic, an emetic, and an emmenagogue.—*Ibid.*

Abstracts and Selections.

A New Local Anesthetic.—Drumine is the title of a new Australian local anesthetic discovered and described by Dr. John Reid, of Port Germain, South Australia. *Euphorbia Drummondii* is the species from the milky juice of which the alkaloid drumine was prepared. Cocaine is known to have a mixed action on sensory and motor nerves, and causes preliminary excitement; while drumine is said to have an almost purely sensory paralyzing effect, and does not cause excitement. Experiments were made on cats and on the observer's tongue. It was injected into the legs of the former animals and caused general dullness, with marked impairment apparently of all forms of sensibility. Placed on the tongue, nostrils and hand of the observer, the resulting anesthesia was most marked. The alkaloid has no action on the pupil, and small doses given internally produce no constitutional effect. It has been employed successfully in subcutaneous injections for sciatica and sprains. The experimentation has so far been imperfect and incomplete. We hope soon to have a fuller account of this new alkaloid, and to be able to give further information thereon. The amount injected subcutaneously was four minims of a four-per-cent solution. Dr. Reid anticipates a brilliant future for the drug in the domain of nervous and cerebral diseases.—*London Lancet.*

Dr. Shakespeare's Recent Investigation upon Cholera.—On the 18th instant a special meeting of the College of Physicians of this city was held in order to hear a lecture upon cholera by Dr. E. O. Shakespeare, who has recently returned from a tour of investigation by special appointment of the United States Government. During his stay abroad he made personal visits to those whose labors have rendered them distinguished in this field, not only in several countries in Europe, but also in India. In commencing his review of his work at the College, Dr. Shakespeare gave brief accounts of recent epidemics of cholera in the different countries where it had been studied, and illustrated his remarks by diagrams of morbidity and mortality. The connection between the outbreaks of the disease and infected water-supply was clearly shown in nearly every instance.

Although the proof of the statement that the comma-bacillus is the active and efficient cause of cholera Asiatica was not entirely satisfactory to his mind, the lecturer felt no hesitation in declaring that Koch had conferred an inestimable boon upon the race by placing in the hands of every practitioner an infallible means of diagnosis of this disease from cholera morbus and other diseases resembling cholera. He expressed the opinion that a health officer or physician who, in the presence of suspected cases and before the prevalence of the malady as an epidemic, should fail to employ this means of deciding whether or not the disease is genuine cholera, would be guilty of criminal negligence.

After a personal visit to Ferran, in Valencia, and an examination of his methods of investigation, he was prepared to indorse the verdict of the French commission with regard to the condition of his laboratory, but as to Ferran himself he arrived at a different conclusion. He was impressed by his modest bearing, and believed him a cultured gentleman, possessed of no mean skill as a bacteriologist. In his laboratory Dr. Shakespeare found as pure cultures of the comma-bacillus, and as handsomely mounted and stained specimens, as could be found any where in Europe. A few of these slides, made in his presence, were exhibited after the lecture was finished.

With regard to the result of Ferran's inoculations, Dr. Shakespeare demonstrated by the official returns made by the government officers, who are not friendly to Ferran, that there was a sudden and marked reduction in the number of cases and in the mortality in several villages after the inoculations were begun, this measure apparently having about six times the value of ordinary hygienic precautions in checking the epidemic. The facts concerning inoculation, so far as they have been reported officially, seem to indicate the importance of making, in future epidemics, this method the subject of a searching scientific investigation, such as it has not received up to the present time.—*Philadelphia Medical Times, November* 27, 1886.

Absence of Alkaloids in Hot-house Plants.—According to Prof. A. Vogel, plants do not always contain their characteristic alkaloids when grown under other than natural conditions. Hemlock does not yield coniine in Scotland, and cinchona plants are nearly free from quinine when grown in hot houses. Tannin is found in the greatest quantity in trees which have had a full supply of direct sunlight.

Hydrofluoric Acid in Therapeutics.—In a remarkable thesis on this new subject (*Revue de Thér.*) Chevy concludes that the vapors of hydrofluoric acid can be inhaled without inconvenience when diluted with air in the proportion of 1–1500. It is an antiseptic and a powerful antiferment; stopping the fermentation of milk, urine, bouillion, and preserving meat in the proportion of 1–3000. Its employment in pulmonary tuberculosis, diphtheria, and as a dressing for bad wounds, has yielded results worthy of further study. Great care should be exercised in its use in asthmatic, hemorrhagic, or emphysematous subjects —*Medical Age.*

WARTS.—The Medical Press says: It is fairly established that the common wart, which is so unsightly and often so proliferous on the hands and face, can be easily removed by small doses of sulphate of magnesia taken internally. M. Colrat, of Lyons, has drawn attention to this extraordinary fact. Several children treated with three-grain doses of epsom salts, morning and evening, were promptly cured. M. Aubert cites the case of a woman whose face was disfigured by these excrescences, and who was cured in a month by a dram and a half of magnesia taken daily. Another medical man reports a case of very large warts which disappeared in a fortnight from the daily administration of ten grains of the salts.

TO PREPARE COW'S MILK FOR YOUNG INFANTS—(Keating). To a four-ounce mixture composed of one ounce of ordinary milk and three ounces of water, add one ounce of ordinary cream and about eighty grains of sugar of milk (a level teaspoonful and a half). This closely resembles woman's milk, though containing less casein and more sugar than most authorities give as the result of their investigation. Still, for very young infants, this is an advantage rather than otherwise.—*Medical Age.*

CALOMEL AS A DIURETIC.—The calomel treatment in dropsy, especially that of cardiac origin, is being much spoken of lately. It was discovered accidently by Jendrassik while treating a man in whom a dropsical effusion was supposed to be syphilitic in nature. He at first used calomel and jalap combined, but further experiments showed him that the latter drug was superfluous. The most effective dose is three grains from three to five times a day, but the diuretic action of the drug does not show itself until some two or three days after beginning its use; that is, not before indications of its absorption appear, then polyuria begins and lasts until all effusions vanish. Any dose above three grains will very likely purge, in which event diuretic action is not obtained. Furthermore, after diuresis has begun it is not necessary to continue the calomel, for polyuria will not cease until edema has disappeared. The author is unable to explain this action of calomel unless it is through the absorption of the effused materials by the blood.

If healthy persons are subjected to this treatment mercurialization occurs, but no diuresis. He also failed in pleuritic exudations with diminished urination. This plan, too, seems to be contra-indicated in cases where dropsy is due to renal disease.

Where diarrhea or stomatitis follow this use of calomel, a little opium (one seventh grain) will check the former, without diminishing the urine, while chlorate of potassium, as a gargle or internally (twelve grains daily), will relieve the latter.—*Boston Med. and Surg. Journal.*

EXCISION OF THE HIP OF A GIRL SUFFERING FROM PULMONARY TUBERCULOSIS; CONSIDERABLE AMELIORATION OF THE STATE OF THE LUNGS.—H. Bresson (*Le Progrès Médical*) reports the following case, which bears on the question, still in dispute, of surgical intervention in tuberculous subjects:

E. G., aged nine years, came under treatment May 16, 1885, for hip-disease on the left side. No precedent tuberculous history, either personal or family. The beginning of the disease was obscure; for two months there was pain and lameness, and the child was kept in bed for four months. She then went about for six months, till the pain and lameness returned. The limb now shortened and rotated inward, and soon intense pain at the knee forced the child to go back to bed. The cautery was used without result, and the condition became worse. She was then kept in immovable apparatus for three and a half months, and was afterward free for six months, her condition having improved. At this time she already coughed a great deal; was pale, thin, without appetite, and with persistent diarrhea; no albumen in the urine, consolidation at the apices of the lungs, moist *râles*, etc. The following month an abscess appeared at the upper and outer part of the thigh. At the commencement of July aggravation of the symptoms suddenly took place, with subacute inflammation of the joint, and strong fever was observed on the 21st. The purulent collection was opened under strict antiseptic precautions. Throughout the month of August the temperature oscillated between 38° and 40°.

Although the tuberculous condition of the lungs caused a long hesitation, at the urgent request of the family, and in consequence of the daily aggravation of the child's condition from the copious suppuration, Dr. Cazin determined to excise the hip, which was done on August 30th. The temperature fell from 40.2°, and oscillated between 37° and 38° for a fortnight, when it returned to the normal. The wound, which was scraped at the bottom by Volkmann's spoon, united by first intention, and presented nothing untoward. Six weeks afterward a silicated apparatus was applied, and the child began to walk with crutches. Since two months she has quitted the infirmary, her condition becoming better every day, appetite returned, sweats and diarrhea disappeared, putting on flesh, and the stethoscopic signs considerably improved. On March 1st there was scarcely any appreciable dullness at the right apex, and only at the subspinous fossa of the same side can a little crepitation be heard upon coughing. The child wears no local apparatus, can walk without crutches, and the limb is only shortened one and a half centimeters.

Her condition at the time of operation was almost hopeless; six months after her general health was as satisfactory as possible. The result, no doubt, depended largely on the strict antiseptic precautions; and in freeing the patient from the constant loss by suppuration, her system was put in a better position to resist the pulmonary lesion.—*Annals of Surgery.*

ASTIGMATISM IN TWINS.—Dr. J. J. Chisolm, at a meeting of the Baltimore Academy of Medicine, said that he had recently seen two cases of interest—two men, twins, aged nineteen years—each suffering from the same degree of astigmatism and of the same angles; and two girls, twins, aged twelve years, each likewise suffering from the same degree of irregular astigmatism and the same angles.

PELVIC ABSCESS IN AN UNUSUAL POSITION, SIMULATING SOFT FIBROID TUMOR OF UTERUS. A. H. N. Lewers, M.D., M.R.C.P. The patient, a woman, aged thirty-seven, had had nine children and three miscarriages. Was confined four weeks previous to admission to London Hospital. With exception of rather profuse loss of blood, the labor was normal. On the tenth day, when getting up, she noticed a swelling in abdomen. She was obliged to again go to bed, but only felt pain in hypogastrium on moving. A smooth elastic swelling was felt rising up from the pelvis to the level of the umbilicus—not tender. It was dull to percussion, and symmetrical. Under ether, the urine having been drawn off, a swelling was felt in front of cervix depressing the anterior fornix. Bimanually this swelling was found continuous with that already noted in the hypogastric region. Uterus movable, and tumor moved with the organ. Fundus of uterus not clearly made out. Sound passed three and a half inches. Diagnosis, probably soft fibroid. The tumor was afterward aspirated from the abdominal aspect by puncture midway between pubes and umbilicus. A pint of most offensive pus was drawn off, and the tumor entirely disappeared. The tumor abscess filled again, and was ultimately opened antiseptically. Patient made a good recovery.—*London Lancet.*

FOR TOOTHACHE.—The following solution is somewhat expensive and rather potent for retail sale, but will be found useful in the operating-room (Medical and Surgical Reporter):

Cocaine (or the hydrochlorate),	xx. grs.;	
Morphia hydrochlorate	v. grs.;	
Benzoic acid	vj. grs.;	
Eugenol	ʒ j.;	
Alcohol absolute	℥ j.	M.

DEATH OF DR. JOSEPH G. RICHARDSON.—Dr. Joseph G. Richardson, Professor of Hygiene in the University of Pennsylvania, and a member of the Board of Health, died very suddenly of apoplexy at his home, No. 3238 Chestnut Street, Philadelphia, Saturday, November 13th.

THE DANGER OF NAPHTHALINE IN RENAL DISEASES.—Dr. Charles W. Purdy says that, contrary to the statements of M. de Pezzer, naphthaline is a dangerous drug to use in cystitis, prostatitis, and pyo-nephritis.—*Journal of the American Medical Association.*

PILLS FOR AMENORRHEA.—De Mussy recommends (*Nouv. Remed.*) the following formula:

Salicin	1.00	(gr. xv);
Pulv. rhei	0.50	(gr. viiss);
Confect. rosæ	q. s.	

M. Ft. pil. No. x. Sig: One to three daily.

METHOD OF REMOVING NITRATE OF SILVER STAINS.—Dip the fingers into a strong solution of cupric chloride. In about a minute the silver will be converted into chloride, and may then be washed off with sodium hyposulphite solution.

FACES.—Mr. Richard E. Burton, writes in December Bivouac:

Wan, white face of a mother old:
Her boy's drowned body, dripping, cold.

Wan, wild face of a mother fair:
With babe at breast, and mercy—where?

Wan, wild faces, mothers each:
Pity for one and soothing speech;

Shame for the other, and sin and death.
"Love one another," some one saith.

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. III. SATURDAY, JANUARY 8, 1887. No. 1.

D. W. YANDELL, M. D.,
H. A. COTTELL, M. D., - - - Editors.
D. T. SMITH, M. D.,

A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

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TREATMENT OF OPIUM POISONING.

We translate elsewhere an able discussion, led by Dr. Lenhartz, in the German Congress of Scientists and Physicians, on the antagonism of morphine and atropine, which can not fail to set to thinking those who take interest in a subject that affords frequently recurring experiences in this country.

There are as yet too many able men divided on the question to permit the advancing of a dogmatic opinion without further experiments. But for our part we much incline to the views of Dr. Lenhartz, that while experimental test will prove antagonism along certain lines between the two drugs, it is not yet by any means certain that they do not work together along other lines to hasten rather than retard death.

It is known that not only morphine and atropia first act as stimulants and then depressants, but that the same mode of action characterizes nearly all drugs that act on the nerves. Strychnine differs from opium in this respect, in that while the stimulant action of opium is soon lost in its narcotic or depressant action, strychnine exerts its depressant action only after a long period. But they both depress in the end. So with atropine; it stimulates at first only to depress afterward.

Now, clearly, there must be an end of stimulation, even if the character of stimulant be constantly changed. And so there must come a time when atropia harms the patient poisoned by morphine. The determination of that time is the task which seems as yet to have been by no means accomplished.

While on the subject of opium poisoning, a few other matters might be referred to that will well repay investigation.

Usually, when a patient is found to be suffering from opium poisoning, every one present is expected to do something, from the servant, who rubs mustard up and down on the feet, to the physician, who injects atropia and plies the battery. What with cold water, the exhaustion of unremitting faradism, the injections of atropia, the walking and flagellation, it is quite safe to say that a large proportion of cases would be better off if not discovered at all, and were permitted to present themselves, after a good nap, to their friends.

Perhaps, in the present doubtful status of the question, it would be proper to give such a dose of atropia as under other circumstances would be perfectly safe, but we could not charge one with neglect of duty who might forego it. The rubbing of the feet and hands with mustard can only be of help to the disturbed family as a kind of satisfaction. They lead to the uncovering of the patient, to a certain amount of shock if in cold weather, and in such circumstances a prevention of the elimination of the poison. Flagellation will, in the present state of public sentiment, also do good (to the bystanders); but if we had a patient in whom we felt unusual interest, we should be much pleased to have some friend volunteer to receive it and thus save him from its depressing effects.

We recently met with a case in which the uselessness of this practice was strongly displayed, and which quite upset our views as to the wisdom of such treatment. The patient was in a state of the deepest coma, having taken, as nearly as could be ascertained, about seven grains of morphine.

We had been convinced that the bastinado was the most effectual method of mechanical irritation, and, thinking this a suitable case, proceeded to apply it in such a way as might have suggested the idea of a competitive test for promotion in that line before a Turkish civil service commission. It had no more effect than if we had whispered in the patient's ear. The leg might have been amputated without a tremor from the sleeper. This case recovered.

This led to a line of thought which resulted in the conclusion that flagellation is needless before coma comes on; that during the condition of deep coma it is absolutely ineffectual; and that when again the patient has passed sufficiently out of the coma to become again sensitive he is, as a rule, out of danger. The practice of compelling the patient to walk about needs no further condemnation; it is already under the ban of science.

The use of electricity may be also misdirected. If the current is applied continually it is apt to result only in harm. If the breathing of the patient be properly timed, and the current applied when the inclination to inspiration is about to assert itself, the battery is a valuable help, but it is not to be used during the time of expiration and rest, for then it can only aid in the exhaustion.

Artificial respiration is the sheet-anchor; and this, too, has to be practiced in a modified way. The favorite Sylvester method does not answer fully in these cases, from the fact that the muscles are so much relaxed that it is difficult to produce an inspiratory effect by lifting the arms. By following expiration, however, with pressure on the chest and abdomen, a larger expiration can be produced, which results in a greater interchange of air.

Large injections of coffee may be given as a non-poisonous stimulant, and as an aid in ridding the system of injurious matters by reason of its absorption and action upon the kidneys.

To sum up, then, we would keep the patient quiet and warm, perhaps inject $\frac{1}{50}$ grain of atropia and no more, hypodermically; inject into the bowels every four hours a quart of strong coffee; keep the room moist, as moist air promotes the elimination of carbonic acid; and finally, with the battery, as already described, and by careful manipulation keep up continuous artificial respiration.

THE RÔLE OF CHLORIDE OF SODIUM.

We recently gave in our Translations the history of some experiments made by a French chemist, going to prove that in the tissues of animals, who can obtain no phosphate of soda with their food, but only phosphate of potash, the chloride of sodium plays the important *rôle* of breaking up a part of the phosphate of potash and forming phosphate of soda.

Though the existence of this particular circumstance had escaped us, we have now and then for years pondered on the *rôle* of chloride of sodium in nature.

The salt mountains of Nevada, the salt island in Louisiana, as well as various other deposits of chloride of sodium in different parts of the world, are almost absolutely pure chloride of sodium.

Of 22.28 per cent of salts found in Great Salt Lake, 20.19 per cent is pure chloride of sodium, and yet many of the streams running into the lake contain vastly larger quantities of other salts. Some of the water is so heavily charged with nitrates and sulphates of soda and potash as to be unfit for animals to drink. In the lake all the potash salts have disappeared.

In the ocean, too, the salts named must from time to time have found their way into its waters in immense quantities. The question is, what has become of them? Has the chloride of sodium possessed and exercised the power of separating them and driving them down into the earth beneath? In instances where the water is nearly saturated, as in the Dead Sea and Salt Lake, it might be a question of solubility. It might be maintained that the chloride of sodium was the most soluble, and that in this way the others were precipitated.

In the ocean, however, seldom as much as four per cent of the mass is solid material, and the point of saturation for any of the salts is not approached; and if precipitated from saturation, they would lie on the bottom as crystals; but the fact is, they have disappeared into the earth at the bottom of the sea. The probability is, that, by settling down into the mass of earth beneath the sea, they have contributed to increase its specific gravity, and enabled it to overbalance the weight of the dry land, and thus aided in causing the seas to occupy a lower level than the surrounding land. Possibly, too, the chloride of sodium may have had much to do, by reason of some peculiar catalytic action, in precipitating various metals and other substances from time to time through geologic ages.

THE LAGGING OF DREAMS.

It has been recently reported of young Cluverius, now under sentence of death at Richmond for the murder of Lilian Madison, that when he sleeps his countenance is a picture of repose and quiet happiness; but that as soon as he awakes his face becomes clouded with expressions indicating, among other disturbing emotions, the most intense misery and painful anxiety.

The experience of the condemned man in this case has found its counterpart in that of almost every one who has met with an overwhelming calamity. It is a significant feature in the philosophy of dreams. Dreams, as a rule, lag in all our changes of place and experiences. It is rare that, in moving to a new locality, or making new acquaintances, or experiencing decided changes of circumstances, that we can at once realize the fact in our dreams. Almost invariably we are placed, in our dreams, amid the old surroundings. This characteristic is very marked in the case of sudden great misfortune or sorrow. Then it matters not how deep the sting, how bitter the reflections in our waking hours, we still for a time may "lie down to pleasant dreams;" and then, awaking to a painful realization of the truth, fain would wish the truth itself the dream.

Nowhere has this characteristic been more fitly portrayed than in that weird creation of genius, Poe's "Raven." It seems to be the half-revealed theme of the poem. It seems intended to portray the memory of some stinging sin or withering sorrow, raven-visaged, invading in dreams the halls of memory, thrusting its beak into the heart, and fated, in days to come, to gather all the soul into its never-lifting shadow.

The condition would seem to be due to the fact that some time is required in order to effect that complete association in the mind of the elements which constitute memory, and which leads to their ready recall. The individual elements or units of force, in the form of which memory is perpetuated, have not formed a sufficient number of associations, have not yet made a sufficient number of acquaintances, so to speak, to recognize them during dreams—the twilight of sleep—and to re-awaken them.

Notes and Queries.

HYOSCINE AS A HYPNOTIC.—Dr. W. D. Hamaker reports (Therapeutic Gazette) the successful exhibition of this drug in an obstinate case of insomnia from mental overtaxation. The dose given by him is from $\frac{1}{112}$ to $\frac{1}{56}$ of a grain. A study of its effects in this case seems to justify the following conclusions:

1. To affect respiration, reducing the number of respirations from three to six per minute in a short time. A source of error lies in the fact that the patient counted the respirations himself, but uniformly there was diminution.

2. To cause slowing of the pulse-rate at every administration, and to weaken the force of the pulse.

3. To produce or *allow* natural sleep. The sleep was always refreshing, and without any after-effects of the drug whatever.

4. To cause sleep, but not to cause "drowsiness" previous to the induction of sleep.

5. In overdose ($\frac{1}{56}$ gr.) to produce alarming disturbance of the heart's action. At one time the patient feared absolute failure of the heart after taking $\frac{1}{56}$ gr. of the new preparation.

6. Entire relief of headache which had been so distressing.

7. Improvement in general health, following, of course, the natural sleep obtained every night.

Dr. Hamaker says, further: The patient continues at present to take $\frac{1}{112}$ gr. at bed time with happy effects. The benefit in this case was more noticeable on account of the utter failure of ordinary hypnotics.

A friend of mine some weeks ago prescribed $\frac{1}{100}$ gr. hyoscine for a young lady suffering from phthisis. It produced violent delirium. Afterward $\frac{1}{200}$ gr. produced sleep, and was attended by no bad effects.

The dose of hyoscine, as indicated by these two cases, should always be small at first, and gradually increased as it is required or is well borne. I remember to have given to a patient in the University Hospital $\frac{1}{56}$ gr. hypodermically. He was suffering from delirium tremens and his heart was very weak. He slept several hours, and showed no bad effects. This I should regard as a dangerous dose until smaller doses had been tried.

Cocaine in Minor Surgery.—Dr. John A. Wyeth exhibited to the New York Pathological Society, November 24, 1886, a lipoma and a small cystic tumor removed from the forehead, cocaine having been employed locally as an anesthetic. He had performed a number of minor operations by using cocaine, and the patients had experienced no pain nor unpleasant symptoms. He had injected as much as three or four grains of the drug in a four-per-cent solution at a single operation. It should be employed with greater care in the region of the fifth nerve. It was safe to use a larger quantity when the limb was rendered bloodless, as after the operation it could be "milked" out before entering the general circulation, and the remaining quantity be further diminished by the oozing which would take place on temporarily removing the Esmarch bandage.—*New York Medical Journal.*

The Société Française d'Hygiene has offered prizes for the best essay on the following subject: "On Sedentariness in Schools (Primary and Secondary), and on Intellectual Pressure in Superior and Special Instruction." The first part is to contain facts and observations to establish the position; the second will indicate the inconveniences and modifications to be applied in regard to the hygiene of youth. The memoirs should not exceed the limits of a pamphlet, in 8vo, of from thirty-two to thirty-six pages. The prizes offered are: (1) A gold medal of the value of five hundred francs; (2) Two silver medals, each of the value of one hundred and fifty francs. The memoirs (written in French, English, German, Spanish, Italian) should be forwarded in the usual academical form to the General Secretary of the Society, 30 Rue du Dragon, Paris, before April 1, 1887.

A Pharmaceutical Term of Reproach.—Our readers are all doubtless informed as to the brilliant war of words that once took place between a Billingsgate fishwoman and a scholar, in which the latter made use of mathematical terms that his adversary could not match. Not precisely in the same line, but evidently quite effective, was an expression of disgust lately applied by a woman to a Paris policeman, "*Tu me fais l'effet d'une pilule!*" This pharmaceutical abuse was more than the policeman could endure, and the woman was brought before one of the police courts, where, according to a Paris dispatch to the London Daily Telegraph, she was acquitted on the ground that there were a thousand kinds of pills, the effects of which were of the most varied character, but she had not mentioned any particular kind. "So we may infer," the account continues, "that, had Ernestine Roussel compared her enemy to a blue pill, for instance, she would have been treated with more rigor."—*New York Medical Journal.*

Accouchement During Mesmeric Sleep. In the *Wiener Med. Wochenschrift* a case is mentioned of a woman whom Dr. C. Braun succeeded in rendering unconscious during labor by throwing her into a condition of mesmeric sleep; the uterine contractions were particularly painful. They were equally violent during the period of unconsciousness, but the intervals were somewhat longer; dilatation of the passages took place in the most satisfactory manner, and delivery was speedily accomplished. The placenta was expelled into the vagina, and was easily withdrawn with the hand. On awakening, the patient did not complain of pain, and afterward slept naturally for several hours. One of the most interesting features of the case was that the uterine contractions induced contraction of the abdominal muscles without awakening the patient. Hemorrhage was very slight.—*Brit. Med. Jour.*

Sir John Lubbock, who is as eminent for the personal attention he gives to the discharge of his duties as an inspector of schools as he is in scientific research, will have an article on "Manual Instruction" in the January number of the Popular Science Monthly. Mr. John Reade has a very interesting article in the same number, on "The Intermingling of Races," in which he shows that crossing is a general, an almost universal phenomenon in human history, that has been going on for thousands of years, and is still going on; and that most of the existing races of men are, to a greater or less extent, the results of it.

New Journals. — We have received the first number of the Southwestern Medical Gazette, edited by Drs. J. B Marvin and M. F. Coomes, of this city. The new journal presents a neat and tasteful appearance, and is well filled with choice matter. Drs. Coomes and Marvin have both experience in editorial work, and, being well equipped, will doubtless maintain the Gazette upon the plane of excellence achieved in the initial number.

Cholera in South America.—Press dispatches, by way of Galveston, dated December 23d, announce that the disease has ceased to exist at Montevideo, but that eighty-six deaths and one hundred and eighteen new cases were reported from Mendoza on the 22d.—*New York Medical Journal.*

The Purity of Mid-Atlantic Air.—In the course of an address on the Action of Micro Organisms on Surgical Wounds, Prof. F. S. Dennis, of New York, states that during his last trip across the Atlantic he made some experiments to test the purity of the air at about one thousand miles from land. He employed capsules of sterilized gelatine, and exposed them for fifteen minutes. One capsule was exposed in the state room upon the main deck of the steamer.

Within eighteen hours over five hundred points of infection had developed. Two capsules exposed in a similar manner in a cabin on the promenade deck, where the circulation of air was free, showed five or six points of infection each ten days afterward. A capsule exposed over the bow of the ship was found to be entirely uncontaminated. These experiments are on the same lines as those of Pasteur and Tyndall upon the mountain air of Switzerland, and, so far as they go, they show the germless condition of mid-oceanic air, and also the need for much more efficient ventilation in the state rooms of even the first-class American liners.

A Distinguished Suicide.—Prof. Sergei Petrovich Kolomin, Professor of Surgery in the University of St. Petersburg, and one of the most brilliant surgeons in Russia, committed suicide, on the 23d of November last, by shooting himself in the temple with a pistol. In operating on a female patient for what he took to be tubercular disease of the rectum he injected into the viscus twenty-four grains of cocaine, which caused the patient's death. The autopsy showed that the diagnosis was a mistaken one.

The affair so preyed upon the mind of Prof. Kolomin that he resorted to suicide for relief.

The "Antiseptic Shake" has become a well-recognized conventional in the clinics of the city. The surgeon about to operate extends to his invited guest, not his hand, but his elbow, which is gently seized by the latter, a slight pendulum motion is made, the courtesies of the day exchanged, and then the quasi-anatomical relations cease. Thus it is shown that true courtesy is not inconsistent with micro-parasitical innocuousness.—*N. Y. Medical Record.*

The Micro-organisms of Varicella.—Dr. P. Guttmann has found and cultivated three micro-organisms in the eruption of varicella. These were staphylococcus aureus, staphylococcus viridis flavescens, and a third to which a name is not given; none of them were proved to be pathogenetic.—*Medical Record.*

STERILITY.—A writer in the New York Medical Journal states his belief in the efficacy of belladonna in the sterility of females. Women with good health, and who are nevertheless barren, have, he says, on several occasions become pregnant after a few weeks' use of belladonna.

REDUCED MORTALITY IN CONFINEMENTS IN VIENNA.—The death-rate in confinements at Vienna General Hospital has been reduced from twenty-eight per thousand in 1865 to two per thousand in 1886, and all this by the improvement in sanitation and the introduction of the antiseptic system.—*Canada Lancet.*

CONCERNING the doctor's business sagacity, the Indiana Medical Journal says: "Too often he has none. From the day he leaves college he advertises himself, by his loose business methods, as a standing candidate for starvation or the poor-house."

IN Holland, says the Medical News, ladies are gradually usurping the occupations of the pharmaceutical assistants. Out of a total of 55 candidates, 19 out of 31 females, and only 8 out of 24 male candidates were successful in the recent State examination.

DR. JOHN J. GRAY, the distinguished alienist, for many years the Superintendent of the New York State Lunatic Asylum, and editor of the American Journal of Insanity, died in Utica, November 29th, of uremic coma.

TINCTURA FERRI CITRO-CHLORIDI (TINCTURE OF CITRO-CHLORIDE OF IRON—TASTELESS TINCTURE OF IRON):

Solution of chloride of iron (U. S. P.), 4 fluid ounces; Citric acid, 2100 grs; Bicarbonate of sodium, 2270 grs.; Alcohol, 4 fluid ounces; Water, sufficient quantity to make 16 fluid ounces.

Dissolve the citric acid in 4 fluid ounces of water, heat the solution to the boiling point, and gradually add the bicarbonate of sodium. When effervescence has ceased, add the solution of chloride of iron and cool the mixture. Then add enough water to make it measure 12 fluid ounces, and finally add the alcohol. Each fluid dram contains about 7.5 grains of dry ferric chloride.—*National Druggist.*

NOTE.—This tincture is approximately of the same strength, in metallic iron, as the official tinctura ferri chloridi.

DR. WILLIAM GOODELL, of Philadelphia, has performed thirty ovariotomies within the last year, with only one fatal result out of the whole number. As these were not selected cases, such a series will compare most favorably with any heretofore reported.

RESEARCHES, by Dr. Newton, published in the Medical News, prove that milk, warm from the cow, when placed in tight cans in a warm atmosphere, will so change as to develop ptomaines sufficient to cause toxic symptoms in those using the milk.

DR. JULIAN J. CHISOLM, Professor of Eye and Ear Diseases in the University of Maryland, has accepted the presidency of the Section on Ophthalmology in the International Medical Congress, to meet in Washington in September, 1887.

AN EXPENSIVE EXPERIMENT.—In the early days of cocaine investigation its toxic power was tested on a dog, and forty grams were required to kill the animal. The cost was eight hundred marks, or about one hundred and sixty dollars.

CHOLERA IN SOUTH AMERICA.—The cholera appears to have chosen South America for its season's work. It exists in epidemic form in several cities of Buenos Ayres, and its presence is reported at Rio Janeiro and in Paraguay.—*Medical Record.*

THE CULTIVATION OF JALAP IN INDIA.—The Madras Government is about to engage in the cultivation of jalap. It was found that the plant grows very well there, and some years ago a large quantity of tubers were given to private individuals in order to encourage them to grow the remedy. But the demand this year from the Madras Medical Department was for 1,300 lbs., and only 400 lbs. could be obtained. So the government has decided to cultivate jalap itself until such time as private growers are in position to supply the demand.—*Medical Record.*

Sir Erasmus Wilson's Will.—On the death, some two years since, of Sir Erasmus Wilson, of England, it was announced that he had bequeathed to the Royal College of Surgeons a very large sum of money, subject only to the life interest of Lady Wilson. The death of this lady, having occurred a few days since, has placed the authorities in possession of the enormous legacy of over a quarter of a million sterling, and at a meeting of the Council of the College, held on Monday last, the fact was formally announced.—*Medical Press.*

The Comparative Prospects of Doctors and Lawyers.—The New York Medical Journal says that the struggles of young doctors are hard enough, as few, if any, of our readers need to be reminded. To those who are inclined to regard their own prospects as gloomier than if they had chosen some other profession, we commend an advertisement that lately appeared in the Daily Register, the New York Law Journal, in which "an experienced attorney" offered his services to any law firm at a salary of five dollars a week.

Absence of Alkaloids in Hot-house Plants.—According to Prof. A. Vogel, plants do not always contain their characteristic alkaloids when grown under other than natural conditions. Hemlock does not yield coniine in Scotland, and cinchona plants are nearly free from quinine when grown in hot-houses. Tannin is found in the greatest quantity in trees which have had a full supply of direct sunlight.

It is estimated that there are in the State of Illinois between 1500 and 2000 physicians more than are necessary to supply the legitimate demand for professional services. It is possible that an equal proportion prevails in other States.

Salicylated Wine.—Over five thousand gallons of wine, containing four and a half grains of salicylic acid to the pint, were recently seized by the New York City Board of Health.

The Springfield, Ill., City Hospital is to receive $25,000 from the will of the late Mrs. C. W. Chapin, provided a like sum is subscribed and the city contributes the present hospital property.

Sir Andrew Walker, Bart., has announced his intention of presenting a sum of £15,000 to the Liverpool University College in commemoration of the Jubilee year.

Army and Navy Medical Intelligence.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from December 19, 1886, to December 24, 1886:

Maj. W. H. Forwood, Surgeon, granted leave of absence for one month. (S. O. 129, Department Dakota, December 16, 1886.) *Capt. J. V. Lauderdale*, Assistant Surgeon, ordered from Ft. Concho to Ft. Clark, Texas. (S. O. 174, Department Texas, December 16, 1886.) *First Lieut. Edward Everts*, Assistant Surgeon, ordered from Ft. Grant to Ft. Apache; *First Lieut. Chas. F. Mason*, Assistant Surgeon, ordered from Ft. Huachuca to Ft. McDowell; *First Lieut. W. B. Banister*, Assistant Surgeon, ordered from Ft. Wingate to Ft. Lowell; *First Lieut. W. D. Deitz*, Assistant Surgeon, ordered from Ft. Stanton to Ft. Bayard. (S O. 136, Department Arizona, December 16, 1886.) *First Lieut. A. S. Polhemus*, Assistant Surgeon, ordered for duty as Post Surgeon at Ft. Gaston, California, relieving *First Lieut. H. I. Raymond*, Assistant Surgeon, ordered for duty at Angel Island, California. (S. O. 123, Department California, December 13, 1886.) *First Lieut C. L. G. Anderson*, Assistant Surgeon, assigned temporarily to duty at Whipple Barracks, Arizona. (S. O. 132, Department Arizona, December 7, 1886.)

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the three weeks ended December 18, 1886:

C. E. Banks, Passed Assistant Surgeon, granted leave of absence for twelve days. December 16, 1886. *P. M. Carrington*, Assistant Surgeon, granted leave of absence for fifteen days. December 6, 1886. *L. L. Williams*, Assistant Surgeon, upon expiration of leave to proceed to Boston, Mass., for duty. December 17, 1886.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. III. [NEW SERIES.] LOUISVILLE, KY., JANUARY 22, 1887. NO. 2.

> *Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.*—RUSKIN.

Original Articles.

MIDWIFERY IN THE COUNTRY.

Forceps Delivery. The Use of Chloroform in Labor.

BY ROBERT N. TAYLOR, M. D.

Under the above caption is an article in the Medical and Surgical Reporter, Philadelphia, Oct. 23, 1886, in which the author gives, synoptically, his method of procedure and experience in about six hundred cases of labor, as they occur in the practice of country physicians. Belonging to that class of unfortunates, and having been in at about the same number of births, the writer hereof is induced to pen his experience, not in any spirit of criticism, but because his experience and methods of practice in obstetrics are so at variance with those of the author under notice as to constitute by contrast almost a distinct system.

The following quotation indicates the extent to which the author of the article in the Reporter utilizes one of the most important and valuable of the obstetric forces, viz., the *vis a fronte*, as well as the estimate he places upon this force: "I hardly know whether I am proud or ashamed to say I have never used the forceps in my life, but I am glad to know I have never had a case of lacerated perineum or a torn cervix."

Surely only an extraordinary good fortune could have carried the obstetrist through six hundred cases of labor without his having been compelled to use the forceps even once. While it may be possible to deliver six hundred women in a practice extending over a number of years without encountering a case that demanded forceps, just as one man may attend a thousand labors without meeting a case of placenta previa, and another meets it in his fiftieth case, yet the experience of most obstetricians will bear out the statement that in one case in every hundred the forceps may be used with great advantage both to mother and child; and further, that in one case in every two hundred the forceps is absolutely demanded; this latter in the sense that it is the *best* and therefore the only thing to do.

The writer does not feel himself entitled to speak upon this subject as one having authority, for he is neither a professor of obstetrics nor the inventor of a forceps, but only an humble member of that misguided, benighted class of individuals, yclept "country practitioners;" but as such he feels that in the practice of obstetrics he has always erred upon the side of the purest conservatism and moderation, and, in six forceps deliveries, in about five hundred labors, that he has not used the instrument rashly in a single instance, but that in each of the six cases the forceps was imperatively demanded; and further, that in still other cases much suffering would have been prevented by a timely resort to the *vis a fronte*—the traction force supplied by the "steel fingers."

These six forceps cases constitute a very limited experience upon which to base any deductions—a very meager array as compared with the numbers encountered by the great men who make the books; but as far as they go they furnish evidence controverting the position of the author of the article in the Reporter, while with each successive case the writer has learned to have broader and more favorable views concerning the use and value of the forceps. Two of the six were "high" operations, the instrument being applied to the head, arrested at the brim, and while yet enveloped by the womb. The first one occurred in the summer of 1875, during my service as interne in the City Hospital at Louisville. The second, in June, 1882, in private practice. Both children were delivered dead. Both mothers made good recoveries. In both cases turning would have been the only alternative, and we have the great weight of Barnes' authority in favor of the forceps as against its alternative, even in cases of arrest at the pelvic brim. (Obstet. Medicine and Surgery, 1885, page 785.) As regards the second case, the woman has since (April, 1886), given birth to a well-grown child at term, after an easy and natural labor.

The other four cases were "medium" operations, the forceps being applied to the head, after its descent, part way, within the pelvic cavity. The first case occurred in 1875, the remaining three in the present year, 1886. In the first case the child was delivered dead; in the three last the children were delivered alive, and are all living yet. The mothers made good recoveries, doing as well as though the labors had been the most natural possible. In these four cases the alternatives were, (1) waiting, that is expectancy or doing nothing, leaving the case to nature, letting it drift along at its own gait; (2) ergot, either by mouth or subcutaneously. Of these two the second, ergot, is now probably abandoned by all intelligent obstetricians, and its use is rapidly becoming, as it should be, obsolete; while the first, expectancy or waiting, had been sufficiently tried before the forceps were resorted to.

In illustration of the latter fact the details of the last case may be briefly given: A primipara twenty-eight years old was in labor from Saturday night at 12 (midnight) until Monday at 12 (noon), a period of thirty-six hours. She was in charge of a neighboring physician. The writer reached the case at 12 M. Monday, was told that the first stage had been protracted by reason of a rigid os, for which considerable morphine had been given, without much effect; that the pains had been vigorous up to three hours before my arrival, since which time they had been getting further apart and more feeble. Upon examination, the head was found in the mid-pelvic plane, and I was informed that it had been in about this position for three or four hours. I watched the patient for thirty minutes, during which time there were two uterine contractions, without any appreciable effect upon the head. They were short, feeble, but gave the woman apparently a great deal of pain. Here was clearly a labor arrested either from faulty expelling force or a want of adjustment between this force and the resisting parts. The membranes had been ruptured and waters drained off for some hours, thus adding another element to the danger of delay. The woman had become very anxious, nervous, and excited, and altogether, aside from her mental condition, it was patent that she needed help to terminate the labor. It could only come in three forms, (1) nothing, waiting; of this sort of help she had already had enough; (2) ergot, dangerous, sure to increase her suffering, liable to cause rupture of the uterus, as well as death of the child; (3) the forceps, certain and precise in results, and void of danger to both lives, when skillfully used.

These being the terms of the proposition, a conclusion was quickly reached, and the forceps terminated the labor, after about thirty minutes of careful traction, aided by compression. The mother was saved from further suffering and rescued from a condition that was rapidly becoming dangerous, while the child was saved from the dangers attending further delay.

Would this woman, if left alone, have ultimately delivered herself? Possibly, but not until after many more hours of severe suffering and great additional risk to her life. Now, considering the law of chances, it is almost incredible that just such conditions as the above should not present themselves to any one having an equal number of labors, and that they do is proved in a measure by the language of the author of "Midwifery in the Country," for he says, "I can see three instances in which the life of the child *might* have been saved by the use of the forceps." These were doubtless cases in which forceps would have found a most appropriate application. He concludes the sentence with this remarkable expression, "But where the mothers made good recoveries, who shall say which was best to do?" This is equivalent to saying that the forceps operation is dangerous to the mother, more so than delay; to say which, is to contradict the experience of every one who uses the instrument, and those who do not use it are not competent witnesses against it. It may be dangerous, but it ought not to be so.

In the hands of a man whose only training for the operation consists in seeing a professor extract a rag baby from a leather manikin with a forceps of his own invention, intent more upon setting forth the superior excellencies of his instrument than teaching the principles which govern in the operation, the forceps may become an implement of woeful destruction. But to him who studies its power for good and evil, so applying it as to develop the former and avoid the latter, it becomes at once an agent most beneficent, a trusty friend in the hour of need.

Our author congratulates himself that, in never having used the forceps he has "never had a case of lacerated perineum or a torn cervix." Certainly these accidents are in nowise necessary concomitants of forceps delivery. In the great majority of cases demanding the aid of forceps the cervix is above the head, beyond the reach of danger from the blades; and in those comparatively rare cases where forceps must be applied to the head, high up and still enveloped by the cervix, care, coolness, and patience will reduce the danger of laceration to a minimum, if not entirely prevent it. In the case of the perineum it is exposed to extra danger of laceration in forceps delivery, not because the blades add any thing to the bulk of the head (on the contrary, their compression power diminishes it by causing overlapping of the bones and in so far directly protecting the perineum), but because the operator, mindful of the necessity of axis-traction, continues to make traction in the axis of the pelvic cavity, when he should be making the traction in the axis of the outlet. In other words, he is pulling the head against the perineum, when he should be lifting it away from that body by drawing it up against and around the pubic arch.

The rule of axis-traction is imperative, and it applies to traction at the outlet as well as in the cavity or at the inlet; and in accordance with it, as soon as the vertex emerges from under the pubic arch, the direction of the traction must be upward, away from perineum, and around the pubic arch as a center.* A non-observance of this rule results in laceration of the perineum. Clearly, therefore, this accident is not due to any inherent fault in the principles which govern the forceps operation, but to the faulty method of their application.

Acknowledging that it is late in the day to discuss the merits of the obstetric forceps, which are now conceded on all sides, yet the article in the Reporter seems to call for something of the kind; and dignity is lent to the affirmative in such a discussion when we remember that so recently as 1884 so great an authority as the venerable Prof. Gross, in the last work of his pen, arrayed himself upon the negative.

Again, there is another paragraph in the article in the Reporter which merits some attention; it is as follows: "The suffering of women during labor is sometimes terrible to see, but if a delivery is carefully conducted, I have yet to see a woman to whom strength sufficient was not given to bear up under the ordeal."

Exactly, just as before the introduction of anesthesia, strength was given to some individuals to bear up under the ordeal of amputation at the hip-joint. But to-day the surgeon who would withhold from his patient the benefit of anesthesia is guilty of no greater barbarism than the obstetrician who withholds from the parturient woman the incalculable boon of chloroform. But in the last quotation our author discovers another method of assuaging the "terrible" pains of childbirth. It is a "carefully conducted delivery," which means a cheerful demeanor, kind, encouraging words, and frequent examinations, by which latter the poor suffering creature is made to believe she gets great help, with all those arts and devices by which the doctor seeks to gain the confidence and admiration of his *clientele.* These, with rupturing of the membranes, unless this also be left to the kindly hand of Nature, too often constitute all that is covered by the expression, "carefully conducted labor." These things are well enough in their way and as far as they go, but will they, do they, in any degree relieve the agonizing, atrocious pain which our kind Dame Nature inflicts upon the majority of women in childbirth? As well expect to relieve the pain of hepatic, intestinal, or renal colic, or a jumping toothache, by kind words and the gentlemanly conduct of the physician! Better far to have in the lying-in room a man with even a brusque exterior and a bottle of chloroform than the gentleman, be he ever so kind-hearted, who depends upon such a "carefully conducted labor" to relieve the pain and give the woman "strength to bear up under the ordeal" of childbirth.

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*This will be readily understood by every obstetrician who has observed the head as soon as the vertex emerges from under arch ride up in front of the pubic bones, lifting itself up and away from the perineum as if by a sentient force. This movement is a diagonal, resulting from the powerful resistance offered by perineum to the expelling force, and occurs in perfection only in cases of strongly resistant perineum. Its accurate imitation in forceps delivery insures to the perineum all the safety of a natural labor, but it must be remembered that sometimes the perineum will be ruptured, even in the most carefully managed natural labor.

Far be it from us of the present day, when the ways and workings of nature are better understood than ever before, to attempt to thwart her purposes or disregard her laws; nor can the passage in Holy Writ (Gen. iii, 16), be construed as an expression of divine will against the use of chloroform to relieve the travail of childbirth, though such a construction is often forced upon it. The fact is, that no valid argument can be advanced, either by moralist or scientist, against the judicious use of this agent to relieve the pain incident to natural labor, that will not apply with equal force to its employment in cases of dystocia and in the capital operations of surgery, in which its benign action is universally admitted.

The writer hereof administers it to every woman delivered by him, unless there is some strong, special indication against it, and such indications are few and of rare occurrence; nor in a long series of labors, extending over a period of more than six years, has he had any cause to regret it in a single instance.

But, in addition to its power of robbing labor of half its terror by the assuaging of pain, chloroform at one and the same time meets certain special indications and accomplishes certain special results better than any other means at our command. In the first stage, with rigid os, the cervical tissue thin, tense, parchment-like, the os forming a hard, tight ring closely drawn around the vertex, the condition probably further complicated or not by the premature discharge of waters, forming just such a state of affairs as nature would be hours in overcoming, chloroform finds a most happy application. Over and over again has the writer seen this most troublesome state of things melt away as if by magic under the relaxing influence of chloroform inhalations, accomplishing the object much more rapidly than its congener, chloral, and much more surely than morphia.

Then, during the entire period of the second stage it meets and perfectly fulfills the indication for the relief of pain, as nothing else at our command will. Toward the end of this stage it aids in protecting the perineum from tearing by partially or wholly, according to the degree of anesthesia, preventing the strong involuntary bearing-down pains which now come on, thus relieving the perineum of so much additional pressure and allowing more time for the molding of the head. With the birth of the head the office of chloroform is at an end, and it should be at once withheld.

Does it tend to the production of *post-partum* hemorrhage? Men of the largest experience with it are agreed that it does not; so far as the testimony of this deponent is worth any thing, it does not. Does it prolong the labor by lessening the force of uterine contractions? Assuredly not, for these contractions are purely reflex, and the narcosis is so managed and maintained that the sense of perception of pain is annulled without the abolition of nerve force residing in the powerful ganglia controlling the uterine contractions.

It may be as well to state that by chloroform is meant chloroform, and that chloroform is not used here in a generic sense as referring to the class of anesthetics in general, for neither ether nor any combination of anesthetics will produce in obstetric practice the results attained by pure chloroform, and this because of the rapidity of its action. But remember, it is no lazy man's job, nor a careless man's, nor yet a sleepy man's job, to administer it.

TOLLESBORO, KY., December, 1886.

EAR DISEASES AS A COMPLICATION OF THE ERUPTIVE FEVERS.*

BY J. MORRISON RAY, M.D.

I do not intend to take up your time by detailing a series of cases, nor will I discuss the variety of conditions that may at times be met with in connection with eruptive fevers. I will simply point out some of the common forms of middle ear disease that every practitioner is apt to encounter during the fevers incident to childhood.

Children furnish a large percentage of our ear patients, and among the incurable affections of adults the seeds of the disease are often laid in the exanthematous fevers of early life. The cavity of the middle ear in children is small, the walls thin and imperfectly formed, and the natural means for drainage, should suppurations occur, insufficient. It is, therefore, not surprising that the general practitioner should feel uncertain as to the proper management of disease in this organ, and that many cases should be left by him to the care of nature alone.

The ears of children are liable to dangerous and often irreparable inflammatory trouble, especially during the eruptive fevers. In these affections the mucous membrane of the upper respiratory tract most often bears the brunt of the disease, and is often the starting-point for irremediable deafness. The profession in general, and, largely through its influence, the laity, undoubtedly attach too little importance to acute ear troubles, thus leading to the prevailing opinion that the treatment of ear disease is unsatisfactory. These incorrect ideas have arisen chiefly from a want of sufficient understanding of the nature and causes of diseases of the ear. From my acquaintance with the subject, I can state that no diseases are more amenable to treatment than acute ear troubles, and no preventive measures are more sure to succeed than those employed in the prophylaxis of chronic aural diseases.

The ear trouble arising from the eruptive fevers is not only severe during the acute stage, but is often persistent. This fact has led many to inquire if there was not a specific tendency in the aural disease of scarlet fever and diphtheria to become chronic. The final cause would seem to be a tendency to long continuance in the primary inflammation, thus lowering the vitality of the part and lessening the chances of recovery.

During infancy the ears, from their peculiar conformation, are more prone to disturbances of function, and more exposed to unrecognized dangers than are these organs in childhood and adult life. In a study of the development of the tympanic cavity, evidence sufficient to convince the most skeptical of the dangers of long-continued or violent inflammation is readily found. The tympanic cavity is formed by a union of the three principal centers of ossification, from which the temporal bone, when complete, is made up. Firm union does not take place until long after extra-uterine life has commenced. The delicate bony roof contains the line of union between the squamous and petrous portions of the temporal bone, and in early life is not closed, thus intimately connecting the meninges of the brain with the lining of the middle ear. The floor forms the roof of the jugular fossa; its inner wall contains the facial nerve and forms a portion of the bony carotid canal. The liability to transmission of inflammatory troubles to vital parts in such subjects, without even the formation of pus, can therefore be easily understood.

Inflammation of the ears is certainly one of those diseases which is most frequently overlooked in young subjects, since they are unable to define its seat by describing the kind or the severity of the pain. The late Dr. Clarke, a distinguished professor in Harvard, says, "So important is a proper attention to the ear during and after the exanthemata, that the physician who treats such cases, and neglects to give attention to the ear, can not be said to perform his duty to his patient." Mr. Hinton, in his excellent little work upon Questions in Aural Surgery, says that he is of the opinion that the mortality from scarlatina might be diminished by bestowing more care upon the ear when affected by that disease; and I am sure, if the importance of this matter were better understood, that fewer cases of incurable chronic suppuration and necrosis of the temporal bone would be found.

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*Read by request before the Beech Fork Medical Society, October 19, 1886.

In the ear complications of the eruptive fevers the pathological process does not arise primarily in the ear, but is transmitted from the throat along the eustachian tube. The nose and naso-pharynx are most prone to inflammatory trouble, accompanied by great swelling, due to increased activity at this age, of the mucous and lymphatic glands, and especially the adenoid tissue found in the vault of the pharynx. The eustachian opening is small and slit-like, the swelling easily occludes it, and we have following all the symptoms known to be due to stoppage of the air-supply to the middle ear. The forms of acute middle-ear trouble met with during the exanthems are the acute catarrhal and the acute suppurative. Up to a certain stage they give rise to the same symptoms and appearances. The first evidence of impending ear complications will be found in the pharynx and nares. Nasal respiration becomes interfered with, the eustachian tube is stopped, and loss of hearing follows. Next the middle-ear cavity proper becomes inflamed, and pain of a violent character is established. Often the symptoms are misleading, since no satisfactory test of the hearing of children can be made, and the fever and restlessness of the general disease mask the local symptoms. If ear complications are suspected and be present, pain may be elicited by deep pressure just below the lobe of the external ear, or in front close to the articulation of the jaw. The surest and only really satisfactory diagnosis is to be made by the aid of the forehead mirror and the aural speculum.

The value of these instruments can not be overestimated. In chronic diseases the changes discovered by direct inspection of the membrane do not by any means always correspond with the extent or seat of the disease, nor does it measure the degree of deafness. In acute diseases the revelations are most positive and satisfactory. The drum's head becomes of a reddish hue. Vessels are seen passing on to it from the canal, especially in the line following the handle of the malleus. The pain and deafness become more profound, and swelling of the canal may follow. Exudations into the tympanic cavity occur, as shown by bulging outward of the drum membrane. If paracentesis is not done in this stage, rupture is apt to occur, and acute suppuration is established. By timely interference this can often be prevented and the disease cut short. The pain can be much lessened by hot-water injections, local blood-letting, and anodynes, together with small doses of mercury, and with gentle inflation by Politzer's air-bag. If pus-formation is inevitable, open the membrane at the most prominent point, and withhold the use of astringents and powders until several days have elapsed. Keep the ear scrupulously clean by hot carbolated water. After the swelling has somewhat diminished, commence the use of powders to stop the discharge and allow the rent in the membrane to heal.

My plan is as follows in most cases of suppuration of the middle ear, whether acute or chronic: I use as little water as possible after the swelling has subsided, but cleanse the ear by the use of peroxide of hydrogen. Formerly this chemical product was kept in the laboratories simply as a curiosity. It has been known in the arts as an excellent bleaching agent for some time. Its well-known affinity for oxygen prompted its trial as an agent to destroy pus, and this it does effectually. The solution kept by druggists has a strength of about twelve-per-cent. Its formula is HO, and when in contact with pus it decomposes it, and in a small cavity like the middle ear is a most excellent agent. After the pus is removed I fill the middle ear and canal with a powder made of resorcin ʒ j, pulv. ac. boric ℥ j.

By this treatment I am rarely disappointed. The discharge promptly disappears, and if the drum-head is not entirely destroyed, it will probably reform. In a case I saw a few days ago, from an adjoining county, the disease had existed for sixteen years, having appeared during scarlatina. Nothing had been spared in its treatment, but all was without avail. Under the treatment spoken of above I was able to effect the prompt stoppage of the discharge and an improvement in the hearing.

While the form of ear troubles of which I have spoken have constitutional diseases for their foundation, treatment of the diathesis, with total neglect of the local condition in the ear and throat, will avail nothing. Local treatment must supplement the general medication, and will always accomplish the most good.

The ultimate results of neglected acute ear diseases I will not discuss, nor will I describe the various complications which we unfortunately often see. I have given you a plan of treatment which will, in the majority of cases, forestall all dangerous complications.

In conclusion I would lay special emphasis upon the fact that an unusually strong predisposition to disease of the middle ear exists in children, owing, upon the one hand, to the peculiar morphological relations of the ear and pharynx, and, on the other hand, to the diseases and conditions of life to which the child is exposed.

The treatment is so simple and satisfactory, that, if intelligently carried out, it will save many a human being not only from the ravages of prolonged suppuration, but from that most deplorable condition, deaf-mutism.

LOUISVILLE.

REPORT OF NINE CASES OF SYPHILIS TREATED WITH SYRUP TRIFOLIUM COMPOUND.*

BY JOHN GODFREY, M. D.
Surgeon in charge of U. S. Marine Hospital, Louisville, Ky.

As can be seen, the dosage was moderate, the object being to treat as many cases as possible with the supply on hand, twelve five hundred cubic-centimeter bottles, kindly furnished by Messrs. Parke, Davis & Co. The results were not established as absolutely as was desired, the patients, as a rule, feeling themselves in such condition as to decline further treatment.

W. A., negro, aged twenty-two years; duration of disease, four months. *Symptoms:* Fever; great debility; osteocopus; neck, body, and inner aspect of thighs seat of pustular syphilide; fauces and pharynx inflamed; cervical glands enlarged. Treated forty-four days. Dose, five cubic centimeters (about seventy-five minims) three times daily. Gradual subsidence of pains and clearing up of skin. Appetite and strength returned to normal. Patient discharged much increased in flesh.

A. W., negro, aged nineteen years; duration of disease, six months. *Symptoms:* Evidences of initial lesion; iritis of right eye; feet and hands swollen; joints stiff and painful. Treated forty-seven days. Dose, five cubic centimeters three times daily; atropia drops. General improvement marked. Iritis improved, but not cured. Patient discharged at his own request

J. F., negro, aged twenty-one years; duration of disease, three months. *Symptoms:* Indurated bubo; says he had sore; no sign upon inspection; osteocopus; frontal headache severe; has gonorrheal complication. Treated thirty-five days. Dose, five cubic centimeters three times daily; mild injection for clap; bubo injected with carbolic acid. Improvement from the first. Headache cured; bubo yielded without suppuration. Gonorrheal rheumatism supervened, giving way less rapidly. Deserted, under the impression that he was well.

M. O'B., white, aged thirty-four years; duration of disease, four years. *Symptoms:* Large rupial sore, six by ten centimeters, below point of right scapula; numerous signs of previous syphiloderm. Been largely dosed with potassium iodide. Treated forty-two days. Dose, five cubic centimeters three times daily; poultice to remove scab; iodoform ointment. Ulcer began healing in a few days, and went on till but a vestige was left.

C. K., negro, aged twenty-three years; duration of disease, two years. *Symptoms:* Thin pustular syphilide on body and part of thighs; enlarged prostate; tenderness along perineal raphe; no rectal trouble. Treated ten days. Dose, five cubic centimeters three times daily. Prostatic symptoms disappeared by the fifth day. Eruption subsided in part. Deserted.

M. F., white, aged thirty-three years; duration of disease, one year. *Symptoms:* Mixed eruption, principally on nates and thighs; night pains; fever; been in bad health since date of chancre. Treated eighteen days. Dose, five centimeters three times daily. Improved at once. Eruption nearly gone by the tenth day. Deserted. Had no pains and no eruption.

J. S., white, aged thirty-six years; duration of disease, thirty days. *Symptoms:* Hard chancre near frenum; induration behind corona, at dorsum; signs of recent rash on body; enlarged glands; osteocopus. Treated thirty days. Dose, five cubic centimeters three times daily, increased to ten cubic centimeters; potassium iodide in gradually increased doses. No abatement of ostealgia till treatment was changed.

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*A case of long-standing scrofula was treated at the same time with the same medicine. Improvement was marked in a short time, but, like so many of the others, the patient deserted.

W. B., negro, aged twenty-three years; duration of disease, eight years. *Symptoms:* Large rupial sores on body and limbs; little pain, but great feebleness; submaxillary and inguinal glands enlarged; laryngitis and bronchial catarrh. Treated eighty-four days. Dose, five cubic centimeters three times daily; potassium iodide, 0.33 gram, increased to two grams. Sores greatly improved in a few days. Medicine stopped on account of pneumonia. Resumed, with little or no improvement, until potassium iodide was added. Patient discharged at urgent request, apparently well.

H. H., negro, aged twenty-six years; duration of disease, five years (?). *Symptoms:* Mixed syphilide plaques on back and thighs, squamo-pustular on elbows; pustules and small ulcers on nose and cheeks; iritis; fauces inflamed; raw-ham pigmentation; glands enlarged; fever; irritating cough. No primary treatment. Treated ninety days. Dose, ten cubic centimeters three times daily, increased to twenty cubic centimeters; syr. ferri et pot. tart., calomel; potassium iodide, 0.25 gram, increased to three grams thrice daily. Skin lesions yielded promptly and iritis improved; other symptoms grew worse. No sleep without anodynes. Calomel on the twelfth day, potassium iodide on the fifteenth. Great improvement. Saw patient six months after discharge. Appeared well.

LOUISVILLE.

CEMENTATION VS. CREMATION.—It is now proposed, in view of the great number who are opposed on various grounds to cremation, to bury the dead in a mass of cement, which becomes perfectly hard shortly after application. In this mold of cement the body would, instead of decomposing, dry up and wither, and the dreams of the imagination about the putrid corpses of our dear ones would be forever put at rest.—*Weekly Medical Review.*

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The idea that the ordinary limits of human life may be greatly extended by attention to the laws of health and by the better understanding of the relations of man to his environments, is one which is slowly but surely gaining ground of late years. The experience of hygiene tends to place the fact of the modern tendency to long life beyond doubt. Statistics encourage the belief that hold upon life may be made much stronger than is ordinarily the case. In healthy districts in England and Wales the mean annual death-rate during the ten years was 17 per 1,000. In some cases it was as low 15 per 1,000. But in crowded districts it rose from 22 and 25 per 1,000 to 32.5 per 1,000 in Manchester, and 38.6 per 1,000 in Liverpool. Recently we have been favored with another illustration of the possibilities which await the expansion of human life, in an interesting report on the life, habits, and family history of some fifty-two cases of persons who reached a very advanced age. Professor Humphrey, of Cambridge University, well known for his researches into questions of longevity, has prepared a series of elaborate tables, in the course of which he contrives to impart certain singularly curious facts regarding centenarians. Of his fifty-two individuals at least eleven, two males and nine females, actually attained the age of a hundred, a fact confirmed in these eleven cases by the production of baptismal certificates and other records. Other of Dr. Humphrey's cases must have attained very nearly to the hundred years. Only one of his cases reached one hundred and eight years, while one died at the alleged age of one hundred and six. Not one case was reported as having attained the age of one hundred and ten. Yet several popularly reputed instances have been given in which that age is mentioned as the period of death. There is a natural pride about longevity which tends to invest its subjects with a halo of romance, and to obscure the actual duration of life. Professor Humphrey, while making this remark, maintains, with reason, that there is no fact of medicine more fully established than the by no means infrequent attainment of the centenarian age. The case of M. Chevreuil, the distinguished Parisian chemist, whose centenary was recently celebrated in France, may be quoted to show that the advanced age in question is compatible with a fair degree of active intelligence. It might seem that the hackneyed phrase about man's "second childhood" is by no means to be taken as invariably implying mental weakness or decrepitude; contrariwise, it may occasionally mean an apparent revival of the powers which in early life are budding forth toward their more perfect development. Lady Smith, at the age of one hundred and three, was a brisk and lively personage, took an intelligent interest in the world's doings, and showed none of the emptiness of ideas and general weariness of mind which one is accustomed to associate with very aged people. Miss Hastings, of Leamington, at the age of one hundred and three, was accustomed to remark cheerily to her friends on bidding them good-bye: "Pay me a visit when you next come to Leamington. I shall like to see you and hear how you are going on." The fact that women preponderate over men in the lists of centenarians is not usually known. In Professor Humphrey's cases the proportion was thirty-six women to sixteen men. He tells us that the comparative immunity of the gentler sex from the exposures and risks to which men are subjected, and the greater temperance in eating and drinking exhibited by women, are the chief points in determining their higher chances of longevity. Of the thirty-six women, twenty-six had been married, and eleven had borne large families. Of the twenty-six who had been wives, eight had married before they were twenty—one at sixteen, and two at seventeen years of age. Twelve of the fifty-two centenarians were discovered to have been the eldest children of their parents. This fact, adds Professor Humphrey, does not by any means agree with popular notions that first children inherit a feebleness of constitution, nor with the opinion of racing stables, which is decidedly against the idea that "firstlings" are to be depended on for good performances on the course. The frames of the fifty-two centenarians, generally regarded, were of the spare build of human architecture. Gout and rheumatism were, as a rule, absent. "It seems," says Professor Humphrey, "that the frame which is destined for great age needs no such prophylactics, and engenders none of the peccant humors for which the finger-joints (as in gout) may find a vent." One of some eight centenarians in whom the finger-joints were stiff and deformed, gave a lucid explanation of the cause when he remarked that he "had always drunk as much as he could, and always would do." The toothless condition of old age is natural enough, and certain advanced philosophers predict a time when highly evolved mankind will have no teeth at all, and when their food will be largely of fluid nature. Yet out of the fifty-two aged people, twenty-four only had no teeth, the average number of teeth remaining being four or five. Artificial teeth were used in only a few cases, but Dr. Humphrey is of opinion that the art of the dentist is a decided aid to the maintenance of health, and to the prolongation of life. The upper teeth, it is interesting to observe, had disappeared at a greater rate than their lower neighbors. This, it appears, is a constant occurrence in advanced age. Long hours of sleep were notable among these old people, the period of repose averaging nine hours; while out-of-door exercise in plenty and early rising are to be noted among the factors of a prolonged life. Not the least important of the facts elicited by Professor Humphrey, are those relating to the temperate habits of the centenarians. Number eight on his list "drank to excess on festive occasions." Another was a "free beer drinker," and number thirty-five, "drank like a fish during his whole life." It somewhat modifies the effect of this startling statement, however, when it is discovered that he could never get very much to drink, and probably only exhibited his fish-like tendency as opportunity served. Twelve of the fifty-two old people had been total abstainers for life, or nearly so; and mostly all were "small meat eaters." There is nothing, after all, very novel in Dr. Humphrey's conclusions. Moderation in all things, added to a sound frame and a reasonable care of health, are the prime conditions of old age.

Until the other day, during the many hundred years of the existence of St. Bartholomew's Hospital, assistance has never been sent from the building to those who may have happened to be injured. An accident had occurred in some neighboring works, and the people sent to the nearest hospital (St. Bartholomew's) for help and a stretcher. They were given the usual reply, that there was no such means of conveyance there, and that the case could only be attended if it were brought into the building. Some of the students, who were members of the Volunteer Medical Staff Corps, hearing the remark, proceeded with a V. M. S. C. stretcher to the works, found the injured man, attended to him, and carried him back to the hospital.

It has now been definitely decided by the Royal College of Physicians and Surgeons, "that an application be made to the Crown by the Royal College of Physicians of London, and the Royal College of Surgeons, England, acting conjointly, for power to confer degrees in medicine and surgery." A grievance of long standing, which has been acutely felt by London students, is now therefore in a fair way of being satisfactorily removed.

Sir William Stokes, Dr. William Moore, and Sir George Bowen are candidates for the position of Crown nominee on the General Medical Council, in the room of the late Dr. Lyons.

London, December, 1886.

Sir Andrew Clark says he was called once to see a gentleman who, fifty years before, had been precipitately superannuated on full salary, on the announcement of the medical officer of an insurance company that he was the victim of an incurable form of heart disease and would not probably live six months.

Dr. Robert McC. Lord writes: "In pelvic presentations, when, after the birth of the body, the head can not be immediately delivered with safety, and death of the child from asphyxia is imminent, air may be freely admitted to its mouth and nostrils, and pulmonary respiration established, by gentle traction on the posterior vaginal wall with a Sims speculum."—*Medical Record.*

Translations.

Arsenic in Malignant Tumors.—Dr. Koebel, of Tübingen, has collected from the literature of the subject, the history of fifty-two cases of malignant tumors treated with arsenic, and added to the number seven treated in the clinic of Tübingen, in order to determine the value of treatment by arsenic. As a result of the investigation, he believes the conclusion is justified, that in cases of general sarcoma, and especially in malignant lymphoma, numerous and sometimes striking successes have been derived from arsenic, though it is not to be denied that in a large number of cases it is quite inefficacious.

At all events, we have in arsenic a therapeutic agent that we may regard as of great value against an affection that, left to itself, leads with certainty to death, and which can in nowise be successfully combated by extirpation with the surgeon's knife.—*Deutsche Med. Zeitung.*

Pyemia from Extraction of a Tooth.—Dr. Zanadzki, of Warsaw, reports a case of fatal septic pyemia from the extraction of a tooth. One of the under molars was extracted, in consequence of which the patient's face became greatly swollen, and on the third day rigors with fever came on. After lingering nineteen days, the patient died. At the autopsy necrosis of the inferior maxillary was found at the point where the tooth had been extracted; the temporal bone was infiltrated with pus, and the dura mater of that side was covered with offensive pus. The soft parts adjacent were infiltrated, and the veins were filled with pus.

[We have met with a similar case in which death occurred from septic pyemia about two weeks after the extraction of a tooth, but were inclined to attribute the result rather to the fact that the extraction had been too long delayed.—Trans.]

Racemose Aneurism Cured by Injections of Alcohol.—Von Plessung, of Vienna, reports the cure of a racemose aneurism, by means of interstitial injections of alcohol, that had resisted stubbornly all other measures of treatment. The injections were at first made every second day, with a thirty-per-cent mixture of alcohol, which was thrown into the margins of the aneurism. The strength was rapidly raised to seventy-five per cent, at which it was continued during the treatment. The injections were made in from four to six places at a time, beginning near the margins and gradually approaching the center as the swelling diminished and the tissues hardened.

By the fourteenth day a dry infiltration extended throughout the periphery, the skin was more lax and the pulsation weaker.

A month later, after the use of one hundred and forty-three centimeters of alcohol, the swelling was almost completely changed into a dry mass; and only in two places, corresponding to the strongest arterial impulse, could pulsation be determined.

After somewhat more than two months of this treatment the patient was as good as cured, and now, several months later, this good result is still maintained. No pulsation at all is to be felt, and the dry infiltration has disappeared. *Deutsche Med. Zeitung.*

WINTRICH'S PERCUSSION PHENOMENON.—The percussion phenomenon of Wintrich signifies, as is well known, the exaltation of the tympanitic sound produced by opening the mouth. During percussion the patient is required to hold the mouth open and shut alternately, and in case there is a cavity in the parenchyma of the lungs, which communicates with the respiratory tracts, an exaltation of the sound through the open mouth and entirely open trachea will be perceived.

The indispensable condition of the existence of the phenomenon of Wintrich is the patulence of the respiratory tract which connects the cavity in the lung with the mouth.

These conditions are very often not sufficiently fulfilled, and for this reason Gebhart, Wintrich, and others have suggested various methods to render it more easy to keep the respiratory tracts open.

According to the writer, all these measures, such as closing the nose, speaking *a*, *e*, aloud, during the examination, etc., are not sufficient to prevent the interruption of the complete connection of the cavity with the mouth. When once the patient at the height of inspiration closes the glottis, he can then unconsciously hold his breath while opening the mouth, or prevent the free passage of the air by closing the epiglottis, or even the soft palate.

In order to guard against all these accidents, the writer recommends that the patient be required, during percussion, to open the mouth, to breathe quietly and deeply, and during both expiration and inspiration to pronounce a steady "*ha.*" This "*ha*" narrows to the smallest extent the air-passages, and as it may be spoken both during expiration and inspiration, it prevents the interruption, in any way whatever, of the communication between the lung cavity and the mouth; and as the patient so pronounces it that the examining physician can hear it continuously, it serves also for controlling the state of the glottis.—*Ibid.*

GLUCOSE AND GLYCOGEN IN THE PRODUCTION OF WORK.—M. A. Chauveau (Academy of Sciences) continued the report of his researches in connection with M. Kaufmann on the *rôle of glucose and glycogen in the production of labor and heat in animals.*

Glucose, which is destined to disappear in the capillaries, is, together with oxygen, to be transformed into water and carbonic acid in the substance of the tissues, and this in all the organs, embracing also the muscles. But for the latter it has a supplementary action. They are provided against a possible dearth or insufficiency of combustible material, that is to say, of glucose, by the supply of glycogen which they contain. This supply, which may be compared to the provision of electricity in accumulators, is laid up during muscular repose. Only a part of the glucose which then disappears is devoted to combustion, the other, by becoming dehydrated, is transformed into muscular glycogen, that is to say, into a reserve for combustion. The oxygen employed in organic combustions is especially taken up by the carbon of the glucose. After having demonstrated the considerable *role* filled in the production of heat and work by this blood glucose, MM. Chauveau and Kaufmann conclude that any new impulse given to calorification, producing any mechanical work, can not take place in the animal economy without the participation, remote it may be, of the liver.

The liver is the indirect collaborator with the muscles in the execution of movements. It sets about the performance of its work more actively, as a glycogenic organ, whenever work is performed in any part of the economy. While the hepatic gland furnishes glucose to the blood in sufficient quantity, the animal continues to produce the quantity of heat necessary for the labor of the organs, and to maintain the temperature of the body.

As the glycogenic function fails and the glucose disappears from the blood of the vessels, these organic combustions fall off rapidly and until death comes to arrest calorification. This last conclusion is strengthened by what takes place in the case of animals subjected to starvation; in those that succumb to loss of heat, on the approach of death the sugar disappears from the blood and the lymph; if the animals die without becoming cold, glucose is still found in these two fluids.—*Le Progrès Médical.*

Statistics and Cause of Aneurism.—Aneurism of the aorta, Richter insists, is a specific disease of the laboring classes. The laborer runs the risk of incurring an aneurism when he subjects himself to the conditions which give rise to endarteritis. The chief causes of the latter are chronic alcoholism and excessive straining of the muscles. Endarteritis is probably the primary cause of aortic aneurism. The majority of these occur in the country, where the number of deaths from diseases of the vascular system is relatively the greatest. Prophylaxis against the acquirement of endarteritis, as also of aortic aneurism, consists in a proper oversight of the mode of living of those who are subjected to hard physical labor.

Different nationalities exhibit the same disposition to acquire diseases of the vascular system in general, as well as aortic aneurism, under the same conditions of life. The number of cases of death from diseases of the vascular system runs nearly parallel, as regards age, with that of the cases of death from aneurism, and is the greatest in the same decades of life. The largest number of cases of such general disease, and of aneurism of the aorta in particular, is observed in the fifties, sixties, and seventies. Of the four divisions of the aorta the arch shows the largest number of aneurisms, next the descending, then the abdominal, and last the ascending. — *Deutsche Med. Zeitung.*

Severe Gastric Disturbance During Pregnancy; Cure by Local Application of Cocaine.—Dr. Bois, of Aurillac, reports a case of intractable vomiting in a pregnant woman, which, in spite of all medication, for several months threatened the patient's life, and in which the induction of labor was about to be resorted to by the attending physician. A cure was promptly effected by the application of cocaine to the vaginal surface of the cervix.

The application was made in the following manner: A mass of cocaine salve (cocaine muriat. 1.0, vaselin 50.0) was applied on gauze, morning and evening, to the cervix. The trouble abated in a short time, and in the course of three weeks a complete cure occurred. There was no relapse thereafter, though the medicine was withheld. Cocaine internally had been previously tried by the patient without success.—*Memorabilien.*

Prof. Chevreuil, the chemist, is about to resign his public offices and retire to Dijon to live with his family.

An Easy Labor.—Dr. S. C. Bridgewater, of Dixon Springs, Tenn., writes to the Medical Record that not long ago a negro woman was walking along one of the streets of that place, when suddenly labor pains began, and before she could get out of town she gave birth to a large, healthy child. She picked up the baby and carried it in her apron about half a mile to her home. She had no medical attendance during or after the labor, and both mother and child did well.

Abstracts and Selections.

Self abuse in its Relation to Insanity.—Before the New York Neurological Society, meeting of December 7, 1886, Dr. E. C. Spitka read a paper in which, after citing the views of the classical writers, he stated that the question of the existence of a special form of insanity due to self-abuse and to nothing else was complicated by the existence of another well-defined affection known as the insanity of pubescence. The mental diseases due to self-abuse usually occurred at the same period of life as the latter disorder. This fact explained the similarity of many of their clinical features. The question was further complicated by the fact that hebephreniacs (sufferers from pubescent insanity) were often addicted to self-abuse, and thus the features of one disorder might be ingrafted upon the other.

The Continental authorities did not recognize a special form of masturbational insanity in their tables. Schüle, it was true, spoke of *onanistic insanity* in the sense in which Maudsley used that term; but he assigned no part to it in his classification, and disposed of it in a few lines. Krafft-Ebig recognized the vice as an etitological factor, and spoke of such and such forms of insanity on a masturbational basis. He, as well a Schüle, with the majority of recent German writers, followed Ellinger in attributing to the *masturbatory neurosis* a relation to the development of insanity analogous to heredity and other admitted predisposing and determining factors. The author had yet to find any dissent expressed by these authorities from the position taken by Emminghaus, who maintained that, owing to its causal relationship to widely differing forms of insanity, it was not proper to speak, as Skae did, of a special form due to masturbation. This critical remark would seem to be supported not only by the clinical facts accessible to every observer, but also by the confusion existing among those writers who had attempted to define such an affection. Skae spoke of a peculiar imbecility and shy habits as characterizing the disorder among the youthful, and suspicion, fear, scared looks, palpitation and feeble bodies as found in older victims, who gradually passed into dementia. The most distinguished disciple of Skae's attributed the following symptoms to that form of insanity of which masturbation was the chief cause and the "chief symptom present," giving "the whole case distinct features": exaggerated self-feeling; conceited, shallow introspection; frothy, emotional religious notions; and a restless, unsettled state, with foolish hatchings of philanthropic schemes. Luther Bell, who, with Isaac Ray, had been among the earliest to attribute special symptoms to insanity caused by masturbation, had furnished a very faithful picture of certain cases, the particular feature of which he described as being a tendency to dementia, a loss of self-respect, a sulky, mischievous, and dangerous disposition, and a subjectively irritable and depressed state of mind. Griesinger, who did not recognize a special form and denied specific characters, admitted that the majority of cases were marked by a profound dullness of sentiment and mental exhaustion, by religious delusions and hallucinations of hearing, and a rapid transition to dementia in the event of incurability, which latter was the usual issue.

The effect of masturbation on the mind and nervous system varied according to the age at which it was commenced. Like other agents which were injurious to the developing brain, such as epilepsy, alcohol, and syphilis, its effect was most rapid and serious in young children, less so in adolescents, and least marked in adults, unless protracted. In very young infants it caused a profound deterioration, manifesting itself in convulsive, choreic disorder, and imbecility. In those who masturbated between the fifth and tenth years the effects seemed to be manifested chiefly in arrested brain nutrition. Spontaneity of thought and action was absent with such children; they did not play as their comrades did. There were a number of other circumstances which modified the development of mental disturbance in masturbators. The age between twenty and thirty five was preeminently the period of somatic introspection. It was at this period, if at any, that the average man began to think about his bodily condition. In these years men weighed themselves, discovered that they had too much or too little flesh, became affected with slight gastric or intestinal disorders, with reflex nervous symptoms, or indulged to excess in tobacco, in drink, and in venery, and consequently were on the *qui vive* for the occurrence of cardiac, renal, or venereal disease, or of sexual disability. It was at this period that the results of masturbation were most deeply felt by a large proportion of the victims of that habit. The prevalent tendency of their age and of their associates of the same age carried them into a veritable nosomania. Perhaps also they attempted, under lay or medical advice, to accomplish coitus and failed. It was for this reason that we found the larger portion of cases of insanity due to masturbation developing between the twenty-fifth and thirty-fifth years classified as "hypochondriacal paranoia."

A number of typical histories were then related from which the author drew the following conclusions: (1) Self-abuse was an etiological factor in a large number of cases of insanity, but only those cases should be designated as insanity of masturbation in which the connection between the excesses and the symptoms was direct. (2) Self-abuse, to produce insanity, must have been carried very far, or the subject must be predisposed. Often onanism could be traced in other members of the family, and very often it was found that the maternal ancestry was a weak one. (3) Mania, melancholia, and epilepsy occasionally occurred in young masturbators, the former two usually having a favorable prognosis. (4) Stuporous insanity and katatonia were both common, and the former presented good prospects. (5) The forms thus far mentioned, when occurring in masturbators, presented no essential difference from the typical psychoses. They should, therefore, be designated as mania, melancholia, stupor, etc., *from* masturbation, and not as masturbational insanity. (6) There was a chronic delusional insanity in grown persons who had been devotees of self-abuse, and it was usually a hypochondriacal *paranoia*. Clinically it was very like typical paranoia, and etiologically it was not the direct result of self-abuse, but rather of an intermediate neurosis, a cerebrospinal irritation which was due to self-abuse. (7) Finally, there was a form of insanity developing about or after the period of puberty which did merit the name "masturbational insanity." It was chronic, had a tendency to agitated dementia, and was characterized in its early period by anxiety, timidity, suspicion, fear, and a cowardly, mean disposition. Subsequently there were confusion, meddlesome, aggressive behavior, vague delusions, loss of memory, and, finally, deterioration. After these were observed spells of fury or destructiveness. This form was never due to any other cause, and resembled no other form of insanity than the one already alluded to. (8) It was not always possible to distinguish between the insanity of pubescence and the form described. But where the former disorder was uncomplicated by the latter it might he known by a history of peculiarities in infancy and childhood, and by the greater constancy of the mental state, which in onanists was exceedingly variable. Hebephreniacs were more apt to be expansive in their notions, more apt to favor projects of a chimerical character. In other words, insanity of pubescence was the paranoia of adolescence, and masturbational insanity the pre-senile dementia of the same period of life.

Pyonephrosis; Nephrotomy.—Dr. Lange, at the New York Surgical Society, meeting of November 22, 1886, presented a woman thirty-three years of age, married, who for years had had painful sensations in her left lumbar region. For about eight weeks she had suffered from severe fluor albus, most likely of gonorrheaic origin, her husband being under treatment for gonorrhea at that time and at the present. For several weeks she had had cystitis, and within the last fourteen days severe pain in the left lumbar region had supervened.

On the 11th of March the speaker saw her in consultation with Dr. L. Strauss. She was feverish, and suffered severe pain in her left lumbar region, where a tumor of about the size of a new-born child's head could be felt, in all its relations corresponding to an enlarged kidney. Probatory puncture revealed the presence of pus. On the 13th of March nephrotomy was done by lumbar incision, and the following condition found: There existed a large, pretty smooth cavity, covered with a thin mucous membrane. At the bottom of this cavity a roundish, fleshy elevation could be felt and seen, apparently the main portion of the kidney. This was fluctuating, and, on incision by the actual cautery, discharged a moderate quantity of pus. The finger introduced felt the characteristic edges and cavities of the dilated calices. The larger cavity was apparently not in free communication with this main part of the pelvis. By its great extension it seemed to be crowded over and overlapping the organ entirely. At its depth, also, some portruding edges of calices could be felt. Both cavities were thoroughly drained, and weak solutions of boric acid used as a wash during the after-treatment.

This case was presented principally because of the smooth recovery which took place within about eight weeks after the operation, when cicatrization was complete. The discharge of pus and urine through the wound decreased very soon, probably on account of the communication through the ureter being re-established. The urine soon showed, also, a much better condition, and was quite clear three months after the operation, containing only traces of albumen. The kidney could then be felt much reduced in size, though still somewhat enlarged. The patient, as would be seen, was then in a flourishing condition of health. From the history of the case it seemed probable that she might have had a hydronephrosis for a longer time, and that, in consequence of gonorrheaic infection, suppuration might have supervened. *New York Medical Journal.*

An Experimental Study of Mycotic or Malignant Ulcerative Endocarditis.—Malignant ulcerative endocarditis is a form of lesion always associated with some kind of bacteria. The causative relation of these bacteria to the lesions are points upon which Dr. T. Mitchell Prudden seeks to throw some light, in a paper in the January number of the American Journal of the Medical Sciences.

Dr. Prudden shows that bacteria are frequent in a certain proportion of cases of acute ulcerative endocarditis in the cardiac and, when these exist, in the peripheral lesions. These bacteria are small and of spheroidal form in almost all of the cases thus far described; but in a few cases the presence of bacilli had been noted. There are cases of ulcerative endocarditis with extensive destruction of tissue and large formation of thrombi, in which the lesions are entirely free from bacteria. In these cases, as a rule, the endocardium is the seat of an old inflammatory process, and the peripheral embolisms, infarctions, etc., do not contain bacteria. In many cases of acute ulcerative endocarditis associated with bacteria the valves and endocardium are also the seat of old inflammation.

The destructive process and formation of thrombi in the heart valve and endocardium may be as marked and extensive in the cases in which the bacteria are absent as in those in which they are present; but in the latter class of cases the embolic lesions, which are apt to be developed, are of an infectious nature, and the general course of the disease is apt to bear the stamp of an acute infectious disorder.

The gross appearance of the valvular lesion does not always or usually enable us to distinguish between these two forms of disease. Bacteria are sometimes present in cases of acute vegetative endocarditis, but in the lesions of chronic proliferative endocarditis they do not appear to occur at all. The bacteria which are present in the cardiac and peripheral lesions in cases of malignant ulcerative endocarditis are the causative factors in the disease. The bacteria apparently produce the cardiac lesions by lodgment on the surface of the valves and endocardium, when the latter are rendered vulnerable to their action either by mechanical or chemical injury, or by the presence of old inflammatory alterations, or by conditions unknown to us. Bacterial embolism of blood-vessels of the heart valves is apparently not of frequent occurrence, as was formerly believed.

The only bacteria which have been thus far absolutely identified as occurring in the lesions of malignant ulcerative endocarditis in man are *Streptococcus pyogenes* and *Staphylococcus pyogenes aureus.* This identification has been made in six cases. Dr. Prudden has demonstrated that other species of bacteria than those mentioned are capable of causing similar lesions in rabbits under similar experimental conditions.

Finally, Dr. Prudden points out that, in view of the significant relationship of the bacteria of pyemia and suppuration to malignant ulcerative endocarditis in the cases thus far fully examined, it is evident that a demonstrably diseased condition of the heart valves, or a previous history which would suggest the possibility of such a condition, should be an additional incentive to the practice of a vigilant antisepsis in operations, however simple, upon this class of cases.

ARE SMALLPOX AND COW-POX ONE AND THE SAME DISEASE?—The physical characters of the microbes both of smallpox and vaccinia are identical, if we neglect difference of size. In both diseases the micrococci tend to arrange themselves in groups of four, and in the early stages the malpighian mucosus is the site selected for the development of each. Pincus's description of the microscopical changes in vaccinia corresponds closely with that by Weigert of the early development of the smallpox pustule. Localization in vaccinia probably results from the local nature of the inoculating process, the irritated parts offering the most eligible sites for exhaustion of the local manifestations. If these were excised within forty-eight hours of inoculation a more generalized exanthem would show itself (Chauveau). Infection in variola is general, not local. Constitutional symptoms consequently precede the rash. The process is centrifugal. In vaccinia the process is centripetal, and general symptoms, when present, come late. When variola is *inoculated* the same thing happens, but then the infective process is sufficiently vigorous to induce secondary general infection and a disseminated eruption. Mr. Fleming can scarcely question the identity of cow-pox and vaccinia. He, however, dislikes the term "attenuation," though he will scarcely deny that Pasteur and Toussaint have independently proved the possibility of attenuating the virus of charbon by the aid of altered temperature, or that they have *fixed* the attenuation thus obtained, so constituting of it a generic character. If this be possible with other microbes, why not with that of variola? Man's temperature is about 37.5° C.; .75° C. higher in the horse, and as much higher still in the cow. These conditions, judging from analogy, are those favorable to attenuation. Virus from horse-pox or from cow-pox induces in man a characteristic eruption; the former sometimes causing marked constitutional symptoms with stray vesicles; the latter is less active, and seldom develops to so great an extent. But, after passing through the cow, horse virus loses its excessive activity, and acquires the name of cow-pox, which, when used for inoculating man, causes no general symptoms. Repeated inoculations of cow-pox on other cows tend to fix the character of the virus—corresponding thus to the fixed attenuations of charbon virus mentioned above. In plants, modifications corresponding to such attenuations are possible. Why not with microbes? Many authors have deemed it right to affirm that variola, horse-pox, and cow-pox are not only interchangeable, but that infection with one of them is necessary to the production of the disease itself in the others.

May we not go a step further, and suggest that the *same cause*—a specific virus floating in the atmosphere—may account for them all, any differences being satisfactorily explained by variations of soil and temperature? In this way so-called "spontaneous cow-pox" would be easily accounted for; the protective power of any one disease as against infection with the others would be more easy to understand, and it would be unnecessary to say, with Mr. Fleming, "that smallpox and cow-pox were different and antagonistic diseases." Though man may as yet have been unable to accomplish the artificial transmutation of smallpox into cow-pox, nature has methods with which we are unacquainted, but whose results Jenner's great discovery has enabled medical science to utilize.—*Arthur Harries, in the London Lancet.*

COLD APPLICATIONS TO THE PRECORDIA IN FEVER.—Dr. Grigorovih has studied the effects produced by applying cold over the region of the heart in typhoid fever. His observations were made on uncomplicated cases of the disease. Respiration at first became somewhat quickened, and was rendered irregular by reflex action; subsequently it became slower. At the end of the application of the ice, and the next morning, it was deeper and more regular, but somewhat slower than before the ice was applied.

The general conclusions regarding the effect of applying cold to the region of the heart are as follows (Therapeutic Gazette, October 15, 1886):

1. The cold undoubtedly reaches the heart itself, and thus produces an effect upon its action.

2. This effect is particularly noticeable when the cardiac beats are increased in frequency in consequence of a high temperature quickly attained, and where a certain degree of sensitiveness to a high temperature exists.

3. The effect of cold is not particularly marked at the termination of a prolonged attack of fever, pathological changes having by that time probably become established in the cardiac muscle.

4. The local application of cold is only capable of protecting the heart-muscle from the effects of a high temperature when it is applied assiduously from the commencement of the disease.

5. Under its influence the action of the heart improves, the number of beats diminish, while their force and amplitude increase.

6. Cold applied to the region of the heart diminishes the gravity of the typhoid condition and has a favorable influence upon the respiration.

7. With regard to the effect of cold applied to the region of the heart on the course of the general temperature, the author can not at present express a decided opinion, as he did not investigate the question; but in the results which he obtained indications may be found of the possibility of its causing some diminution of the temperature.

PASTEUR AND PROTECTIVE MEDICINE.—Dr. Avery told of Pasteur's parentage, his boyhood, his studies, and his first triumph as a chemist in discovering the left-handed polarizing tartaric acid. Pasteur, after this work, was made assistant professor of chemistry at Strasburg, where his first work was to prove the power of minute organisms to change or modify chemical affinity. He was then made dean of the faculty of science at Lille. Here he determined to devote a portion of his lectures to the study of fermentation. The prevailing theory of fermentation at this time Pasteur could not accept. He afterward experimented with milk, and discovered the lactic ferment; and soon after, in the same substance or some of its products, he found the butyric ferment. These two organisms he found to be entirely distinct. The lactic ferment requires, for its existence and multiplication, free oxygen or air, while the butyric ferment died when exposed to the atmosphere. Pasteur soon demonstrated that the special fermentation known as putrefaction is caused by a living organism belonging to the same class as the butyric ferment; and he also soon discovered the acetic acid ferment—the "*mycoderma aceti.*" Pasteur's next work was to demonstrate that spontaneous generation was a myth; and he then discovered the germ which caused so much havoc among the silk-worms of France and other countries. He demonstrated that the disease among the silk-worms was contagious, and gave practical directions for its prevention, which restored the silk industry to Europe. This work led him to the great work of his life—the development of the theory of the parasitic origin of communicable diseases; and in this effort he took up the disease known as anthrax or splenic fever, which was decimating the flocks of all Europe. "He put a drop of splenic-fever blood into sterilized yeast-water; in a few hours it swarmed with myriads of bacteria. A drop of the first cultivation he put into a second flask containing the same kind of liquid, and the bacteria multiplied as before. This process he repeated fifteen or twenty times, and by this means freed the initial drop of blood from any substance it might have carried with it. And now, if a drop of this last cultivation is injected under the skin of a rabbit or sheep, the animal dies with all the symptoms of idiopathic splenic fever." Pasteur had studied vaccination, and he now undertook to vaccinate for protection of animals against splenic fever. "Before the close of 1881 Pasteur had vaccinated 33,946 animals. In 1882 the number amounted to 399,102, including 47,000 oxen and 2,000 horses. In 1883 200,000 were added to the list. In 1881 it was the common practice of farmers to vaccinate one half of their herds and leave the other half unprotected. It was found at the close of the year that the loss in the protected sheep was ten times less than in the unprotected, being one in seven hundred and forty as against one in seventy-eight. In cows and oxen it was fourteen times less. . . . "In pursuing his investigations of the splenic-fever disease, Pasteur made some curious and interesting discoveries, which are of practical value to sanitarians and all who are interested in preventing the spread of communicable diseases. . . . He found that an attenuated virus that could cause no harm to a guinea-pig of a year or a month, or even a week old, would kill one just born. The weakened microbe could multiply itself in the blood of one so young; and a few drops of this pig's blood would kill one still older, and so on until the full virulence of the microbe was restored. . . . Exposed to the air, these germs become weakened or take on the form of spores, in which condition they will remain viable for years, and float in the air as minute particles of dust, until they find lodgement in the proper media for their development and multiplication. What is true of these germs may also be true of the germs of diphtheria, scarlet fever, smallpox, typhoid fever, and other communicable diseases. In localities where these diseases have prevailed as epidemics, is it not quite possible that their attenuated and viable germs are constantly floating in the air, ready to resume their active form whenever and wherever the condition of climate, of poverty, of wretchedness, of filth, and of bad air present themselves?" Dr. Avery closed his paper with a discussion of Pasteur's work in inoculating for hydrophobia.—*Transactions of Sanitary Convention, Big Rapids, Michigan, November* 18 *and* 19, 1886.

PARALYSIS OF THE FOUR EXTREMITIES FOLLOWING FACIAL ERYSIPELAS.—Professor Brieger (*Berlin Klin. Woch.*) relates the following history: A girl, aged fifteen, suffered during convalescence from an attack of facial erysipelas with vague pains in various parts of the body, which after a time were limited to the upper part of the dorsal vertebræ, from which they radiated to the shoulders and down both arms. The pain was of a lancinating character, and occurred in paroxysms of short duration. In three months and a half after the erysipelas, when the attacks of pain were severest, complete paralysis of the right arm set in. In three days afterward the left arm became affected, then the right leg, and a day later the left leg became similarly involved. The paralysis was attended with abnormal sensations and increased tendon reflexes. Finally the muscles of the neck and bladder were attacked with paralysis, while the abdominal muscles remained intact. The electrical excitability did not undergo any change, and the sensibility, particularly of the lower extremities, was markedly diminished. At the same time atrophy of the muscles on the right side rapidly developed. The author thinks that the palsy could not be attributed to a peripheral neuritis, inasmuch as the faradaic and galvanic excitability of the muscles remained normal. It was more probably due to gross changes in the spinal cord. The nature of this can only be conjectured as a local accumulation of erysipelas cocci (*erysipelkokken*) in the cord. Certainly the pathological changes could not have been very serious, as the paralysis entirely disappeared under the use of the constant current and the employment of iron and iodide of potassium. [We can not agree with the author that the state of the electrical excitability entirely excluded peripheral neuritis. The development of the atrophy, on the other hand, especially as it was limited to the one side, makes the case a puzzling one.] *New York Medical Journal.*

INFANT FEEDING.—This problem is one in which the medical man and the mother or nurse are generally more or less at variance. The former forms his opinions and establishes his practice on physiological data, tempered, possibly, by the result of experience; the latter takes her stand on the fact of having reared, or seen reared, a number of children on a diet which, according to the doctor, is perdition for the infant. As in every other department of medicine the carrying into practice of a hard and fast rule, without due regard to circumstances, is apt to be attended with a want of success, if nothing more, yet without some such rule the path is one beset with difficulties and often fraught with danger. The greatest improvement, so called, in the matter of infant diet has been the introduction of malted foods, or foods in which provision has been made for the theoretical necessity of rendering the starch of farinaceous foods soluble. Medical men, however, are by no means agreed as to the advantages attending this mode of diet, and the same caution is requisite here as elsewhere. The great test of a suitable diet, even if theoretically incorrect, is its result; the proof of the pudding, as the proverb says, is in the eating. If the child thrive, if no intestinal irritation be present, and if the motions are normal in appearance, number, and quantity, and especially if the body weight increases at a proper rate, the diet may not unreasonably be held to be suitable. It is well, of course, to start on the lines laid down by theoretical considerations; but if the child obstinately refuses to do its duty by the food, it must be desirable to yield a point and try something else. It is essential to a proper grasp of the subject that the medical man should know exactly what he orders; no newfangled mixture or concoction should be approved, the exact composition of which is not known to him. If he elects to be guided by the claims put forward in the advertisements, he will, if he be logical, discard the natural food altogether, for pure unmixed advantage is claimed to attend the use of this or that food. It is interesting to bear in mind the experiments alluded to by Sir William Roberts in his lectures at the College of Physicians. Kittens fed exclusively on predigested food did not thrive as well as others fed on milk. Of course, where the natural supply of milk is sufficient it is almost criminal to replace it by other devices, but most frequently the question occurs where that supply is absent or deficient. The proper use of malted foods is certainly in small quantities, not as a substitute, but as an adjunct to milk.—*London Medical Press.*

RATTLESNAKE VIRUS AS A MEDICINAL AGENT. The practical value of crotalus in the treatment of disease has been abundantly proved, if clinical experience is to be accepted as proof, which in the face of the great *post-hoc propter-hoc* dilemma must be considered as doubtful. All that can be said in this respect is that the data forthcoming are as reliable as those which have established the reputation of many of the reigning therapeutic favorites. The main application of this remedy is in the pernicious fevers, where the whole mass of the blood is vitiated, probably as a consequence of the diminution or loss of vitality of the protoplasm composing the leucocytes, a condition, it is well known, in cases of almost all the fevers, and in pneumonia, where the patient is so reduced in strength that he can only lie on his back, usually with eyes open; the hands are seen to be tremulous and in incessant motion—what is called carphology and subsultus tendinum being present—the tongue is dark-brown, especially in the center, and conveys to the sensation a roughness like that of a brick; the pulse is extremely rapid (140, 150, or more) and irregular; muttering delirium may be present, but the patient is evidently too weak to utter loud sounds. This condition, known as "the typhoid state," whether supervening upon a continued fever, pneumonia, or mere senile asthenia, is well and successfully treated by drop doses of solution of crotalus, 1 in 100, repeated every two hours. Most medical men have met with a condition of body, usually at the end of an organic complaint of long standing, such as Bright's disease, phthisis, mitral disease of the heart, etc., but sometimes merely from age added to want or deficiency of essential ingredients of the food even in young people. The patient at once strikes spectators as having a wretched aspect—the face is waxy and transparent, chlorotic in hue, restless in expression, the eyes blared and sunken, the lips white and covered with sticky exudation; slight injuries, pressure of clothes, etc., are apt to produce ecchymoses; purpuric rashes, indolent suppurations, or even gangrene, are common. Extravasated blood is liable to make its appearance in almost any tissue, organ, or secretion of the body. Such a condition, whether following upon organic disease or due only to insufficiency or improper quality of the food (scurvy), is well treated by drop doses of crotalus solution (1 in 100); the blood is gradually brought to a healthy condition, where this is possible, and in other cases amelioration and prolongation of life may be confidently looked for. That form of Bright's disease which is a sequela of scarlet fever and other exanthemata is often benefited by crotalus. A certain form of headache—not severe in degree, and not increased by shaking or sudden movement of the head—usually present in persons of languid constitution and sedentary habits, and often accompanied with relaxed sore throat, has received much benefit from the drug where it has been impossible to remove the cause—that is, a relaxed condition of the system. It will be seen that crotalus is one of those substances which, though producing extremely violent effects in large quantities, has little effect in comparatively small doses, and apparently has little preference for individual organs; in this it resembles prussic acid, and is unlike most other violently acting poisons, such as arsenic, which has a distinct elective affinity for the skin and stomach, or phosphorus, which selects the lungs and the nervous tissues. Its sphere of usefulness must be looked for, therefore, among the graver maladies, where the whole blood mass is affected, rather than in slighter and more localized ailments.—*Dr. Alfred Drysdale, London Medical Press.*

CEREBRAL LOCALIZATIONS.—At the meeting of the Imperial Royal Society of Physicians held in Vienna, November 19th, Exner made an address on cerebral localizations, in which he summed up the present status of physiological opinion on the subject, reviewing the published declarations of the principal authorities, and comparing them with his own views.

Taking for his point of departure the late discussion at the Assembly of German Physicians and Naturalists at Berlin—a discussion rendered memorable by the participation of leading physiologists who have made a special study of cerebral localizations—and after a rapid review of the views of Munk, Ferrier, Hitzig, and Fritsch, Luciani and Sepilli, Charcot and Pitres, Exner remarked that, according to his own scheme, the centers of the different functions are not isolated, but inter connected, each with each in the cerebrum.

Paneth has clearly shown that Hitzig's centers (which differ but little from Ferrier's) represent only the *maximum* of excitability of the sense or motor function therein localized. Hitzig has, moreover, adopted this statement, as harmonizing with the facts which he has witnessed. Charcot and Pitres, Luciani and Sepilli, oppose Exner's views while admitting the interconnections of the various centers. After this general survey Exner takes up the consideration of the different centers.

As regards the motor area in the dog, Exner asks if this area be really circumscribed, or if it extends beyond the limits indicated by Munk. Munk presented to the Assembly of Naturalists a dog which he had rendered blind by removing the occipital lobes; but, as this animal could not descend a flight of stairs, Goltz affirmed that there must be a lesion of motility also, for a dog, simply deprived of its visual lobes, ought to be quite able to descend stairs. Munk, in commenting on this objection, affirms that a dog from which a part of the cerebrum has been removed must comport itself differently in its movements from a dog whose cerebrum is intact, meaning by this that the motor functions of the dog are impaired; hence the occipital lobe not only contains the visual center, but the motor area extends also into this lobe. Goltz has declared that the results which he has obtained are not in contradiction with those of Exner and Hitzig. Fritsch, moreover, led by anatomical considerations, has pronounced against the exact limitation of localization, so that a majority of physiologists are agreed as to what concerns the motor sphere. Among sensorial zones, the visual center is the best known and the most important. According to Munk, the visual zone is very limited; Goltz protests against any such limitation, and Hitzig, Luciani, and Sepilli are in agreement with him. Exner and Paneth have determined lesions of the sigmoid gyrus in ten dogs. Nine of them had visual troubles, but it is possible that these were due rather to a "lesion of attention" than of true vision.

Is it possible to render animals blind by extirpation of the occipital lobes or of the entire cerebral cortex? Frogs preserve their visual faculty intact after extirpation of the whole of the cerebral cortex, and it is the same with birds. Nevertheless, Munk pretends that pigeons become blind after extirpation of the entire cortex. Gudden has removed, in hares, the greater part of the hemispheres, and these animals do not become blind.

Munk has demonstrated that a dog may be rendered blind by extirpation of the occipital lobes. Goltz presented to the Assembly of Naturalists the cerebra of dogs which, during life, saw very distinctly. These cerebra differed in nothing from those shown by Munk. It is, then, very probable that the extirpation of the occipital lobes does not always produce blindness. This view seems paradoxical, and in contradiction, at first sight, with the law of causality; but it must be remarked that the brain is an organ whose functions are still largely in the domain of hypothesis, and variations of greater or less importance in both structure and function have been proved. Thus it is that aphasia is determined sometimes by lesion of the left inferior frontal lobe, and sometimes by lesion of the right inferior frontal lobe; there exist also cases in which decussation of the pyramidal columns has not been found. Munk's dogs were blind, but in these cases Munk himself has acknowledged that there was atrophy of the optic nerves.

Must we deny the law of Gudden, which says that lesions of the cortex never determine lesions of the peripheral nerves, or must we admit that Munk removed something besides the cortex?

The animals observed by Munk also presented functional lesions of certain parts of the retina. Here, again, the question comes up, was not the visual trouble of these dogs due rather to lesion of the attention than of the faculty of vision? Munk's scheme, according to which the cerebral cortex of one side is connected with half the visual field of both sides, has been combated by Luciani, who has obtained the same visual troubles, whatever part of the cortex was extirpated.

Exner finally makes allusion to the little knowledge which we possess respecting the cerebral localization of the other senses; he remarks that almost all the physiologists who have wrought at this question admit that there do not exist strict and well-defined localizations, but that the different centers are inter-connected, each at the same time presenting a region more especially rich in nerves and nerve-fibers pertaining to a certain function.

The report of the Physiological Section of the German Naturalists and Physicians, at the meeting in Berlin last September (*Deutsch. Med. Wochr.*, No. 40, 1886), shows not only great differences of opinion in regard to cerebral localizations, but of interpretation of the results of experiments upon animals. In fact, some of the meetings were quite stormy, and it was apparent that anger may possess the minds of physiologists as of celestials.—*Boston Medical and Surgical Journal.*

Palpation of the Pelvic Organs.—An interesting point in regard to the palpation of pelvic organs, made by Schultze in 1885, has recently been cited in the *Centralblatt für die medicinischen Wissenschaften.* Schultze calls attention to the possibility of error from making pressure upon the intrapelvic muscles. The obturator internus may be felt through the rectum or vagina as a distinct swelling, when the thigh is rotated strongly outward. Pressure upon the muscle is rarely painful, but pressure on the obturator nerve, which accompanies it, produces a cramp-like pain in the thigh. The belly of the psoas magnus may be mistaken for a morbid growth, an error which will not be likely to occur if the thigh be actively flexed and extended while the finger rests upon the muscle. The pyriformis muscle may also be a source of error unless a similar procedure be employed.

In these days, when displacements of the ovaries and pelvic cellulitis fill so large a portion of the horizon of gynecology, it may be well to bear in mind the errors into which the muscles within the pelvis may lead an unwary examiner, and Schultze has done a worthy service in calling attention to them.—*Med. News.*

Professor Virchow on Charcot's Joint Disease.—At a meeting of the Berlin Medical Society, held on November 17th, a most interesting discussion took place on the joint affection peculiar, as is generally assumed, to tabes dorsalis. The subject elicited a speech, which amounted to an address, from Professor Virchow. The debate was opened by Herr Rotter, who began with these questions: (1) Is the joint disease (occasionally) found in tabetic subjects a special arthropathy different from all other joint affections? (2) Is this joint affection only indirectly connected with the tabes, or is there an intimate causal connection subsisting between them?

Clinically considered, this (Charcot's) joint disease, said Dr. Rotter, was peculiar in the following respects: Its appearance in a definite stage of the tabetic disease, the so-called prodromal stage; its sudden onset; the absence of inflammatory signs; the analgesia of the deep parts, especially of the bones; the peculiar swelling of the soft parts; and, lastly, the rapid destruction of the joint.

Pathologically, it differed from arthritis deformans, inasmuch as ulceration of the intra-articular structures was enormously in excess of new growth, while the reverse was the case in the latter disease, especially as regards extra-articular bony growth. But this does not necessarily constitute a specific difference, for many authors refer the peculiar character of the tabetic joint disease to analgesia of the bones, and the want of regulation in the loads they bear, the result being increased liability to injury. Others, again, consider the disease to be a special nervous affection, because, in the first place, it usually precedes all ataxic phenomena; secondly, the process may occur in the upper limbs, which have no abnormal weight to bear; and, lastly, it may attack bedridden people. A specific joint disease, from direct nervous influence, is here assumed to exist, the affected bones being supposed to have an abnormal liability to fracture and lessened resisting capacity, and the bony alteration being strictly limited to circumscribed parts. This liability to fracture is assumed upon the following grounds: (1) Intracapsular spontaneous fractures are not seldom found in this disease (the diaphysis being in this case affected, instead of the epiphysis); (2) microscopical and chemical examination have revealed corresponding changes in the bones; microscopically, a rarefaction commencing centrally, and advancing to the periphery; and, chemically, a decided lessening of phosphorus and calcium carbonate, and an increase of fat. These latter changes are considered primary, and due to special nervous influence, and not merely secondary to the joint disease. Other joint diseases in tabetic subjects run their usual course.

Such is the case ably presented by Herr Rotter on behalf of a specific arthropathy in tabetic people. Virchow opposed this view. There was no doubt at all in his mind that the usual causes of joint affection—mechanical and thermal causes—sufficed to explain the disease. He could not understand how a nervous (trophic) influence, starting from a diseased spinal cord, could be so entirely limited to a single joint. As to the early appearance of the joint disease, that was both difficult to prove and also a suspicious statement. Some cases—notably one of hip joint disease, as to which he had differed in opinion from Westphal—were doubtless congenital or due to luxation soon after birth. Again, in some cases, disease of the knee joint followed upon fracture of the femur in the lower third. Others, said to be tabetic, were plainly syphilitic. Indeed, a large proportion of cases assumed to be tabetic had been proved to be due to syphilis. But lastly, there was no doubt that arthritis deformans was the disease to be kept the most in mind. Even the advocates for a tabetic arthropathy—Virchow objected to the word "tabeticus" as being bad Latin; "tabicus" was a little better, but not much; he himself had used the expression "arthropathia tabidorum," as we speak of "eclampsia gravidarum"—allowed that the process was at first one of proliferation, to which a regressive stage (of loss) succeeded. The only peculiarity lay in the quicker course of affairs and the more startling results produced.—*Brit. Med. Jour.*

The Diagnosis of Uremia from Apoplexy.

Chauternesse and Tenneson, in the *Revue de Médicine*, relate cases of partial epilepsy and hemiplegia in Bright's disease which they have, by *post-mortem* examination, proved to be due to local edemas of the brain.

I believe that it is not generally known that hemiplegia occurs in uremia, thus occasionally making the diagnosis between uremia and apoplexy an extremely difficult one. As in uremia the treatment must be one of active interference, while in apoplexy the opposite holds good, the diagnosis is of the utmost importance.

I have recently met with two cases similar to those reported by Chauternesse and Tenneson. A man, aged forty, was recently admitted into the workhouse infirmary in a comatose condition, with right hemiplegia and without convulsions. The pulse was of high tension, the heart considerably hypertrophied, and there was a trace of albumen in the urine.

All these symptoms were compatible with the diagnosis of cerebral hemorrhage. To my astonishment he recovered consciousness immediately after being bled, the hemiplegia passing off in a few hours.

During his stay in the infirmary he had five other attacks, which were always preceded by delirium and restlessness, together with violent convulsions of the right side of the face, right arm and leg, and conjugate deviation of the eyes to the right, giving place to hemiplegia, the eyes then being turned to the left. Each attack was cured by a small bleeding. The urine in this case was free for days from albumen, though tested at various times of the day.

The other case was that of a woman, aged sixty-two, brought in one evening completely comatose. There was right hemiplegia, conjugate deviation of the eyes to the left, dilatation of the right pupil, and abolition of the right conjunctival reflex.

The breathing was of the "Cheyne-Stokes" type, the heart a little enlarged, but the pulse of low tension. Clonic spasm of the facial muscles occurring at short intervals, the case was suspected to be uremic, though the urine apparently was not albuminous, and I ordered her to be bled. One ounce and a quarter were drawn, and she became conscious almost immediately after.

The next day the hemiplegia had disappeared, but she had sensory aphasia, there being "word blindness and word deafness." Free purgation was kept up, and within two days she was well.

On testing the urine by daylight, I found there was a slight trace of albumen present, the quantity of urea being only one per cent, and the average daily quantity of urine passed being forty ounces. I could discover no casts, and there was no change in the fundus oculi.

In both the above cases the temperature was a little below normal, and in both no history of the onset of the attack could be obtained, the patients being brought in from the street by the police. In the diagnosis of these cases the occurrence of convulsions is of great assistance. A convulsion occasionally occurs at the onset of apoplexy, but is rarely repeated, while in uremia convulsions are common and usually frequently repeated; any elevation of temperature would be strongly in favor of apoplexy. In all cases, when in doubt between apoplexy and uremia, I should bleed.—*Dr. C. W. Suckling, in British Medical Journal.*

Influence of Diabetes on Gestation.

In an interesting paper by Dr. Lecorche (Journal American Medical Association) on the above subject, read before the Medical Society of Hospitals, Paris, the author has shown that diabetes does not render women sterile. He had six diabetic patients who were delivered of children at full term, but they were all delicate. According to this physician, when diabetic women are sterile, it is due to uterine lesions resulting from diabetes. Diabetes has direct influence on the process of gestation, impairs fetal nutrition, and is favorable to fatty development, especially hydrocephalous. It often produces dysmenorrhea and amenorrhea, and an early menopause often results from an overlooked diabetes. If the sugar disappears, the menses may return.

Is the "Knee-kick" a Reflex Act?—Dr. Warren P. Lombard, in a paper in the January number of the American Journal of Medical Sciences, endeavors to determine whether the time between the moment of the blow on the ligamentum patellæ and the beginning of the following contraction of the quadriceps muscle is long enough to permit the phenomenon to be a reflex act. The result was the discovery that this period was about only one fourth as long as that required for a skin reflex from the knee, and very little longer than that seen when the quadriceps muscle is incited to action by direct electrical stimulation.

His experiments lead him to the belief that the contraction of the quadriceps muscle following a blow on the ligamentum patellæ comes much too soon to be the result of a reflex stimulation. It is probable that the stimulation is due to a sudden stretching of the muscle fibers, and that the stimulus has the same character as when the muscle receives a direct blow. Before this conclusion can be accepted, however, the undoubted influence of the spinal cord upon the production of the phenomena must be explained. The current explanation that the irritability of the muscle to finer mechanical stimuli is dependent on "muscle tonus" will not be altogether satisfactory until the existence of "muscle tonus" is proved.

It seems probable that, in addition to the first impulse which comes to the quadriceps when the ligamentum patellæ is struck, occasionally a second impulse, of reflex nature, originating either in the nerve ends of the skin or of the tendon and muscle, may come to it and increase the height of the contraction. Under normal conditions, however, this would seem to play a very subordinate part.

Turtle-liver Oil.—At the Colonial and Indian Exhibition, turtle liver oil was shown by the Kingston Preserved Turtle Factory; also various other preparations of that famous reptile. These include green and yellow turtle fat, calipash and calipee, turtle diamonds, turtle soup in tablets, and turtle eggs. Probably the last three articles might be worthy of attention for invalid diet. The eggs consist entirely of yolk. In the mature state the eggs have a tough skin, and contain a white albumen, which does not become opaque when the eggs are boiled. To obtain the eggs without the albumen, they are extracted from the interior of the turtle, and in this state are about one inch in diameter. These immature eggs are considered a great luxury.

The turtle-liver oil is given in consumption instead of cod-liver oil, and is said to be more palatable than it, when fresh. The dose is a tablespoonful three times a day. It is also used by the natives of Tortola, Virgin Islands, as an alterative in syphilis and rheumatism.—*Oil, Paint, and Drug Reporter.*

The Medical Jurisprudence of Crime and Responsibility—Dr. Daniel Clarke (Medical News) concludes his paper, read before the Canadian Medical Association, as follows:

1. The natural history of crime shows that brains of chronic criminals deviate from the normal type, and approach those of the lower creation.
2. That many such are as impotent to restrain themselves from crime as the insane.
3. That immoral sense may be hidden from expediency by the cunning seen in the brutes, until evoked by circumstances.
4. No man can shake himself free from the physical surroundings in which he is encased.
5. Crime is an ethical subject of study outside of its penal relations.
6. Insanity and responsibility may co-exist.
7. Some insane can make competent wills, because rational.
8. The monomaniac may be responsible, should he do acts not in the line of his delusion which are not influenced thereby.
9. Many insane are influenced in their conduct by hopes of reward or fear of punishment in the same way as the sane; the rudiments of the free will remain.
10. Many insane may have correct ideas in respect to right and wrong, both in the abstract and concrete.
11. Many insane have power to withstand being influenced even by their delusions. M.

The Gaseous Medication, per Rectum, of Pulmonary Diseases.—The latest novelty in therapeutics comes from a Frenchman, Bergeon by name. The "new medication" consists in treating certain pulmonary diseases attended with cough (chronic bronchitis, whooping cough, phthisis, etc.,) by rectal injections of certain gases, which are readily absorbed and eliminated by the lungs, such as carbonic acid, sulphureted hydrogen, and sulphide of carbon. These gases, at the moment of elimination, are believed to have a favorable modifying influence on the diseased mucous membrane, promoting the resolution of inflammation, the healing of ulcerations, and wonderfully diminishing cough and expectoration.

It has long been known that certain medicines given in pulmonary complaints for the relief of cough, such as copaiba, turpentine, and carbonate of ammonia, largely owe the benefit which frequently attends their use to the modifications which they effect on morbid states of the pulmonary mucosa while being eliminated by the emunctory. It has been known, too, that various gases, such as those above mentioned, when absorbed by the venous system, also pass out in the air of expiration.

It was, many years ago, proposed to treat diseases of the lungs by causing patients to respire medicinal vapors, and many have been the attempts made to fulfill this indication, with, however, but indifferent success; the medicated vapors, as ordinarily inhaled, were found not to penetrate very deeply, and to be far less diffusible than was thought *a priori* to be the case; some gases, as carbonic acid and sulphureted hydrogen, could not be required with impunity. It remained for M. Bergeon, basing himself on the same experiments of Claude Bernard, to show the practicability of the treatment of pulmonary diseases by causing these latter gases to be absorbed by the rectum. This method, according to M. Bergeon, has also another advantage, namely, that of distributing the medicament throughout the entire pulmonary mucous membrane, and thus insuring its contact with diseased parts.

The method employed by M. Bergeon is quite simple; he makes use of a mixture of carbonic acid and sulphureted hydrogen. Pure carbonic acid, generated on the spot from *cartouches* containing an exact quantity of tartaric acid and bicarbonate of soda, is conveyed into a rubber bag of just the capacity of four liters; the latter is connected by suitable tubing with a rubber-ball injector, which is worked by the hand, and which also makes part of a rectal tubing and canula, resembling that of a Davidson syringe. The rubber bag is filled with carbonic acid, which flows into it from a glass generator, in which the contents of the cartouche are dissolved; the gas, before being injected, is made by an ingenious device to pass through a glass flask or *barboteur* containing a solution of sulphureted hydrogen, where a blending of the two gases takes place, and it is this gaseous mixture which is utilized for injection. It has been found by M. Bergeon that no other solution of sulphureted hydrogen gives so satisfactory results as natural mineral waters, particularly the *Eaux Bonnes* of the Pyrenees.

Apparatuses for the manufacture *in loco* and therapeutic application of this new remedy are now for sale by the instrument-makers of Paris. The directions given for the use of the apparatus are as follows: "Only one, or, at the most, four liters of the gas used on each occasion. The injection must be made slowly and without force, and it is necessary to leave an interval of from ten to fifteen seconds between the successive pressures made on the rubber ball, and to allow about half an hour for the entire operation. One, or, at the most, two injections (or *seancés*) are practiced per day."

Bardet, in the *Journal Nouveaux Remèdes*, and Dujardin-Beaumetz, in the *Bulletin Général de Thérapeutique*, have reported the results of several trials of this new system of pulmonary therapeutics in the Hospital Cochin. "All agree," they say, "as to the signal benefits derivable from this treatment. In chronic bronchitis of whatever nature the three following modifications are constantly obtained: diminution and rapid modification of the expectoration, diminution of the cough and of the oppression; there ensue, as a consequence of this amelioration, better sleep, better appetite, and an augmentation of weight." These gaseous rectal injections are said to be generally well tolerated, when slowly and carefully made. In pulmonary phthisis, it is claimed that marked amelioration has been obtained.

Dr. J. Henry Bennet gives, in the British Medical Journal of December 18, 1886, an account of his personal conversation with the inventor of this new process of medication, and while claiming to have heard of it at first only with incredibility, he ended by acknowledging its resemblances in theory and its efficacy in some cases in practice. In a lecture which M. Bergeon gave upon the subject to a score of the physicians of Mentone, he claimed that the failures which have resulted from the process have been due merely to the faults in its performance. Thus, if the bag of carbonic acid is not scrupulously emptied and freshly filled before each operation, some atmospheric air will penetrate it, and, being injected, will cause intestinal pain and irritation. Not only is air an irritant to the bowel, but so are other chemical agents that have been tried, as chlorine, turpentine, ether, and ammonia, some of which even produced gangrene in the animals on which they were tried. Dr. Bennett was much impressed by the relief given to an aggravated case of asthenia by the injections.

We shall await with interest the results of further trials in the Parisian hospitals of this new method of treating pulmonary diseases; it is not a mode which is destined rapidly to become popular, in this country at least, nor will it be likely soon to come into favor with physicians in private practice.—*Boston Medical and Surgical Journal.*

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. III. SATURDAY, JANUARY 22, 1887. No. 2.

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A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

Books for review, and all communications relating to the columns of the journal, should be addressed to the EDITORS OF THE AMERICAN PRACTITIONER AND NEWS, Louisville, Ky.

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COMPULSORY EXPERT TESTIMONY.

The vexed question of the right of the State to require expert testimony to be given by witnesses, without compensation, has just been brought up in Ohio in a way that promises to lead to a final settlement.

Dr. F. H. Darby, a prominent physician of Morrow, Ohio, and President of the Miami Medical Society, was recently summoned to give evidence in a case involving a question of expert testimony in regard to the nature of a wound on a body found dead. He refused to testify without first having been compensated, insisting that the State had no right to require him to testify without compensation. The judge promptly sent the doctor to jail and subsequently fined him twenty-five dollars for contempt of court.

Dr. Darby had notice of appeal filed by his attorney, and proposes to carry the matter to the end of the law.

The question at issue in this case has been variously decided by the different courts of the country. In several States it has been held that experts are entitled to extra fees; but, if we may judge from the precedents cited on the trial of this case, the precedents in Ohio have not been favorable to expert witnesses; though the Ohio Court of Appeals has not yet decided the point. In England the rule is, that no man can be compelled to give opinions on the witness-stand. Nor is a person bound even to accept a subpœna merely to state opinions. If, having been summoned, the expert witness takes his place in the witness-box and begins to testify, he must then continue, on the same principle as that of a defendant in a suit, who if he pleads over without demurring, having thereby admitted jurisdiction, is not permitted to demur afterward. It is likely also that an expert who has once testified in a case could be compelled to testify in subsequent trials of the same case, if on no other grounds than the right which the court has to prove, in subsequent trials, testimony given by him on previous trials, which could only be done on the plea that he could not be had as a witness. If it shall be finally decided that the case of Dr. Darby is one which comes under the jurisdiction of the United States Supreme Court—and, as a constitutional question it certainly can be brought before that court—it is not easy to see how it can be decided otherwise than in favor of the expert.

It can hardly be denied that a man's special skill and knowledge are his capital or his property, and upon this point a decison would hinge. For this once admitted, the case would clearly come under the constitutional provision prohibiting expropriation without compensation.

There are, true enough, some exceptions to this provision of the bill of rights. There are cases where a man's property may be taken without compensation, though, it is true, not exactly for public use, but nevertheless rendered useless, and for the public benefit; as where a house is torn down to arrest a fire, or where riparian land is taken for levee purposes. It might be said, then, that expert testimony as well as unexpert comes under the same principles of the police power of the State as the instances just cited. For, clearly, under the police power of the State, the witness to facts may be compelled to testify, even though at great pecuniary loss to himself. The cases, however, are not strictly parallel. In the case by the witness to facts, the State and the defendant are placed on the same footing; each may summon all the witnesses. But suppose this rule extended to expert witnesses. Certainly the defendant ought to have all the privileges of the prosecution. If the State may compel a man to testify merely because he is capable of giving intelligent opinions on a case, she can summon him any where within her jurisdiction for that purpose. The defendant then must have the same privilege, otherwise he would not have a fair trial. In that case any man, who should by superior ability and diligent study become eminent in a character of learning which might be brought to bear in criminal trials, could be kept constantly traveling from from one part of a State to another to give evidence in such cases. Once begun, there is no stopping place short of this. The English rule is consistent and just. No one should be held bound to accept a subpœna, even merely to state opinions.

We trust the profession will come to the aid of Dr. Darby with pecuniary assistance as well as moral support, and that this case will be brought before the United States Supreme Court for final adjudication.

SHOULD A PATIENT EAT WHAT HE CRAVES?

A goodly number of medical men, and that of the independent common-sense class, are in the habit of recommending that patients should eat, as a rule, whatever they have an appetite for.

The appetite is a good guide no doubt, but better perhaps as a negative than a positive guide; better to be heeded by the sick in its vetoes than yielded to in its supplications. No doubt, since the student days of Hippocrates, stories have been going the rounds of the profession, and the laity too for that matter, of astonishing cures produced by some tabooed article of diet. One has a story to tell of some perishing child that snatched a plate of bacon and greens and ate them with such greedy relish that the doting mother could not control her sympathy enough to restrain it, more especially as the doctor had told her "it could never get well any way," and which yet thereafter went right on to recovery. Another patient, after making his will and taking leave of friends, had been seized with a craving for buttermilk, and after drinking a liberal amount was promptly restored to health. And so on, till a volume might be written of such stories.

But on our dull understanding the force of the whole argument is lost. When our patient begins to crave bacon and cabbage or beef and turnips, we are always much pleased with the request that makes the craving known. We take it as an omen of good, showing that the crisis has passed and the healthy functions of the system are re-established. Notwithstanding, it does n't follow by any means that he gets them. If our patient ask for a stone, we will give him bread rather. Patients innumerable, no doubt, have been killed by gratifying a healthy appetite, but an appetite, however, that had outstripped the power of digestion in the progress toward recovery.

Notes and Queries.

Editors American Practitioner and News:

Two Cases of Puerperal Eclampsia.—I here report two cases of puerperal eclampsia, with remarks on some features of the disease, and the effects of certain drugs used in its management that I have neither read nor heard of. In so doing I hope to set forth a fact that may be of value to my fellow practitioners.

The teaching I had while a medical student and my subsequent reading urge the necessity of controlling the spasms with an anesthetic, preferably chloroform, and the evacuation of the uterus as speedily as possible whenever it is practicable. In the management of the cases here reported I have resorted to neither of these methods.

I take it that it is very generally believed that this epileptiform seizure is due to toxemia, and the chief end of treatment is the control of the spasm and the elimination of excrementitious matter from the blood.

That we have in potassium bromide and chloral hydrate remedies which meet these indications, the result of the following cases would seem to prove:

Case 1. I was called at midnight of September 12, 1886, to see the wife of a colored man, who stated that she was in labor, and had been since the morning before under the care of a "grannie," and that she had been more or less unconscious since a little before sundown. I found the woman in a violent spasm, the third or fourth she had had since about dark.

Examination showed the patient to be in the first stage of labor, the os dilated to the size of a nickel five-cent piece, pains regular and moderately strong. Leaving labor to nature I addressed myself to the management of the convulsions. I gave by the mouth between fifty and sixty grains of potassium bromide and about ten grains of chloral hydrate every hour until the spasms ceased. At six o'clock the following morning the woman was delivered. Between the time of my visit and the hour above but two light spasms occurred.

Case 2. About midnight of January 3, 1887, I was called to see Hattie J., a primipara, age seventeen, the patient being much under the average size of girls at that age. She began having pains about noon of the 3d. She, like the preceding, was under the care of a "grannie." Her father said she had the first spasm about 9 o'clock P. M., when he called a neighboring physician, who had regarded the case as hopeless, and abandoned it. I was summoned about two hours afterward. In making an examination directly after my arrival, I found the os almost out of my reach, and only dilated to the size of a twenty-five-cent piece. The pains were regular but feeble, pulse hard and rapid, respiration stertorous. The spasms recurred as often as once in fifteen or twenty minutes. The patient was unconscious between the attacks. By hard work I succeeded in getting about sixty grains of potassium bromide and ten grains of chloral hydrate into her mouth, which she swallowed. I repeated the dose in about half an hour; after that it was impossible to get her to swallow, so I gave her every hour as much as a dram of potassium bromide and fifteen grains of chloral *per rectum*, and, as in the first case, left labor to nature. I watched her for an hour and a half, when I retired, leaving instructions to call me should labor seem imminent. About daylight the father came to me, saying "the baby was born, but the after-birth had not come away." When I reached the bedside I found the uterus emptied of its entire contents and well contracted. She was still unconscious and having spasms, though not with the same frequency as before. They recurred not oftener than once in two hours, and continued at this rate until a very profuse diaphoresis set in, which lasted throughout the entire day.

I would like to call the attention of my readers to this fact, that neither of my patients had any medicine at all except those above named. The first, after the third dose, began to perspire. The second took as much as eight doses, equal to four hundred and eighty grains of bromide potassium, and one hundred and twenty grains of chloral, when she too began to perspire, but, unlike the first case, she had a very profuse diaphoresis.

I am convinced, after a careful study of the cases, that the potassium and chloral were the cause of it, although, as I said in the beginning of this report, I never knew that they possessed diaphoretic properties.

Again, neither was relieved of the spasms till the perspiring occurred, showing that the toxic material causing the spasms was eliminated through the skin.

In each case there was slight opisthotonos, and the clonic spasms were confined to the muscles of the face, jaw, eyelids, arms, and forearms, while the thumbs were firmly flexed in the palms. The legs were as rigid as in death. The spasms in each case lasted about three minutes. When the spasmodic contractions were relieved or quieted the patients lay in a stupor for a variable length of time.

Ultimately both women recovered entirely. The child of the first died at the end of twenty-four hours of cyanosis. That of the second is well and hearty.

G. L. POPE, M. D.

Stoneville. Miss., Jan. 8, 1887.

Iodide of Potassium Poisoning.—In a recent number of the *Berliner Klin. Wochenschrift*, a remarkable case is recorded by Dr. Wolf, of Goritz, of poisoning by the medicinal administration of iodide of potassium; the amount of the drug taken was no more than four tablespoonfuls of a three-per-cent solution in about thirty-six hours, and the purity of the drug was shown by chemical analysis. The patient was suffering at the time from subacute kidney disease of about three months' standing, and cardiac hypertrophy, which fact we must bear in mind in estimating the idiosyncrasy. After the administration of four tablespoonfuls of the above-named solution, the face became swollen and covered with pustules, papules, and bullæ, and in twenty-four hours the mucous membrane of the mouth, pharynx, and alimentary canal became attacked in a similar manner. On the cessation of the drug no amelioration ensued, and in eight days the patient sank into a state of collapse and died. No necropsy was made. A similar case was recorded by Morrow, in which the administration of the drug to a person suffering from renal and cardiac disease caused an eruption resembling pemphigus, with similar symptoms and result.—*Boston Medical and Surgical Journal.*

Idiosyncracy as Regards Tannic Acid. Dr. J. M. Williamson relates, in the Practitioner, a curious case of idiosyncrasy with respect to tannic acid. The patient suffered from severe dyspnea whenever the drug was exhibited. The writer thinks that in an anemic subject, as was his patient, the process of converting tannic acid into gallic acid may be in some way retarded.

How some Special Hospitals are Founded.—The Hospital, a weekly publication, the organ of the Hospitals Association of London, casts a not ill-aimed shaft at a tolerably common device of the young specialist who is looking for a job, and who joins to himself a professional "organizer" to present the subject to a charitable public. The latter person evolves and circulates the following manifesto:

FREE DISPENSARY FOR DISEASES OF THE LITTLE TOE.

——— Street, ——— Square.

In the year 1883, 30,807 persons died of diseases of the little toe. This number (which includes cases of gangrene, pyemia, phlebitis, and bunion) is exclusive of the very numerous deaths from wasting diseases and cancer of the digit. (See Registrar General's Report.)

According to the above extract, diseases of the little toe have occasioned more deaths in England than diseases of any other organ, and a comparison of the returns for 1883 with those of the previous years show that these diseases are increasing in a ratio greatly out of proportion to the increasing population.

Deaths from Diseases of the Little Toe.

1874	13,846	1877	17,908	1880	21,905
1875	15,401	1878	19 634	1881	30,940
1876	15,009	1879	20,879	1882	24,802
		1883	30.807		

Besides the above number of fatal cases, there is a still greater number of diseases of the little toe not terminating in death, but which give rise to extreme suffering and misery, especially among the poorer classes. *This is the only institution specially devoted to the treatment of diseases of the little toe,* and the fact that in less than two years upward of 10,560 patients (from all parts of England) have been relieved, proves that it is a necessity. The employment of the newly-invented instrument (the little-toe scalpel) is a special feature in this institution, and by the aid of this instrument morbid conditions of the digit can be fully exposed and adequately treated. Further aid is required to meet the urgent demands caused by the daily increasing number of out-patients. It is likewise essential that a ward should be speedily opened for the reception of the more acute cases. *At least £1,000 is required to establish a ward containing six beds.* For this purpose the committee have determined to open a new subscription list. Those who desire to assist in this particular way will please notify that their subscriptions or donations are to go to the "ward fund." The benevolent are respectfully informed that the very existence of this institution will be jeopardized unless the funds are considerably augmented.

JEREMIAH DIDDLER,
Secretary.

Chinese Treatment of Cholera.—The Chinese have a rather radical cure for cholera. A Shanghai paper says that, on July 22d, a Chinaman employed on one of the steamers was taken ill, apparently with cholera. The following is the course which was adopted, according to the paper from which we quote: "His friends immediately sent for a native doctor. This individual had with him a box containing some long needles, and these he used on the patient.

A needle was driven some distance into the man's head, near each temple, and again behind his ears. In each case bleeding followed. Needles were also driven into the lips, both sides of the chest, both sides of the stomach, and also into the pit of it. The doctor then scraped the skin of the man's throat till it looked like the neck of a turkey. This violent treatment had the desired effect, and in a few hours afterward the man was quite well, and eating his midday meat with evident relish."—*Boston Medical and Surgical Journal.*

The new-year number of the St. Louis Weekly Review announces that Dr. Robert Luedeking, owing to press of professional business, has retired from the position of Association Editor of that journal. Dr. Luedeking will long be held in kindly remembrance by many members of the American Medical Association, to whose enjoyment he contributed so greatly in connection with the brilliant young *coterie* who composed the editorial staff of the Review.

Dr. B. J. Primm has been chosen to succeed him, and no doubt the Review will continue as heretofore—one of the freshest and most wide-awake journals of the country.

A Rival to Dr. Tanner in London — Londoners may breathe at last. They have now nothing to envy Parisians or Romans in the matter of a fasting phenomenon. A M. Jacques has declared his intention to equal, if not exceed, Succi's feat, by fasting for thirty-one days or more. He commenced his experiment on Tuesday evening, November 30th, at Dieudonné's Hotel, St. James'. The doctors are naturally on his track, anxious to derive whatever information is to be obtained from the voluntary privation to which Jacques has decided to subject himself, and the blanks in our knowledge of the intimate details of the process of slow starvation, ought shortly to be filled up without difficulty. He is reported to be a well-nourished, healthy man, forty-four years of age, of good personal and family history. His weight before commencing his experiment was one hundred and thirty-eight pounds without his clothes, but it was reduced five pounds during the first day, owing to the passage of large quantities of liquid and solid excreta. His temperature was 99.1° F. both before and on the day after commencing operations, but his pulse was full, strong, and regular. He is a fairly intelligent man, but rather overrates the importance to science of his undertaking.

We certainly do not envy him his position for the next few weeks, even if the tedium of his existence is broken by frequent visits from medical men, their conversation generally not being of a nature to inspire an uncontrollable gayety.—*London Medical Press.*

The Price of Blood.—The Maryland Medical Journal says that a very poor and aged white woman was murdered on November 10th, at her home in Baltimore, by two colored men named John T. Ross and Albert Hawkins. The object of the murder was to get fifteen dollars for the body of the victim. Anderson Perry, well known to many of the recent graduates of the University of Maryland, first as a ward-master at the infirmary, and more recently as an attendant in the dissecting-room at the University, is charged as an accessory to the crime. The murder was conceived and executed in the most premeditated and cold-blooded manner.

Rough on Rats.—The melodramatic suicide of two young women recently, by means of that common article of "domestic consumption," "Rough on Rats," calls attention again to the folly of allowing the sale of deadly poisons without restrictions. It is very generally known that "Rough on Rats" contains arsenic in large quantities, and it is still more generally known that it can be purchased from grocers or apothecaries, no questions asked, by any one having the few cents to pay for a box. If a servant girl, otherwise known as the "lady help," thinks she is not treated with a sufficiently distinguished consideration, she puts a box full of "Rough on Rats" in the flour barrel or in the family tea-pot. Two such actual cases have been commented on in these columns within a year or two; if a young woman has a jealous "tiff" with a lover after dinner on Christmas evening she puts half a box of the compound into her own stomach; and, most startling of all, another young woman swallows a full box out of mere sympathy and affection for her friend and companion. We shall take occasion to revert to this subject again.—*Boston Med. and Surg. Journal.*

Medical Literary Men.—Since it has been shown that a man can be a good physician, and at the same time invigorate his mind by occasional tasks in literature, a goodly number of the prominent members of the profession have been proving their prowess in that field. Dr. Holmes, having paved the way with his diversified gifts to multiple honors, Sir Henry Thompson, Dr. Hammond, and Dr. S. Weir Mitchell have won distinction in the same field. Dr. Donaldson, of Baltimore, has also just added his name to the list. Nor will Louisville be left out of the race. Dr. John Godfrey, surgeon in the United States Marine Hospital service, has had published an edition of a narrative poem of Indian life, entitled "Sebeganonshee," which critics have spoken of in high terms; and a thrilling story of ante-bellum times in the South, from his pen, will shortly appear in a popular Eastern periodical.

A Decision Favorable to Mrs. Pavy.—All the friends of the late Dr. Pavy will be glad to hear that the Secretary of the Interior has reversed the decision of Commissioner Black on the claim of Lela Pavy, widow of Dr. Octave Pavy, late acting Assistant Surgeon, U. S. A., under contract with the Greely expedition, who died of starvation at Cape Sabine, about June 6, 1884. She is granted seventeen dollars per month. The Secretary holds that though Dr. Pavy's contract had expired he was still in the service.

Stricture following Gonorrhea.—From a large number of tabulated cases, Drs. McIntosh and Carter have arrived at the conclusion that a stricture of the urethra, as the result of gonorrhea, is a comparative rarity among full-blooded negroes. Traumatic stricture, in their experience, rare in the white race, is quite common in the negro, half, or nearly half, of all cases of stricture met with in the full-blooded negro being caused by traumatism. They think the course of gonorrhea in the negro is undoubtedly milder and more amenable to treatment than in white men. Their first table shows, in 298 cases of gonorrhea in white men, 68 strictures, or 1 stricture to 4.25 gonorrheas; in 154 cases in the negro race, 12 strictures, or 1 to 12.25 cases. Other tables point to the same result; so that, judging from the combined statistics, it would appear that a given number of cases of gonorrhea among the whites will result in three times as many strictures as will the same number among the negro race.—*Weekly Medical Review.*

Bi-Tartrate of Potash in Pregnancy.—Edward Anderson, M. D., writes, in the Maryland Medical Journal: "My experience has been, that if the bi-tartrate of potash be administered to a pregnant woman for one month prior to confinement, in a sufficient amount to bring about free action of the kidneys and bowels, puerperal convulsions will never occur. In my opinion opium should never be given where eclampsia is threatened, unless its use be preceded by free purgation or venesection, as it is very apt to cause what we wish to prevent."

The library of the late Frank Hastings Hamilton, M. D., LL. D., has been sold to Dr. John B. Hamilton, Supervising Surgeon-General United States Marine Hospital Service, Washington, D. C. The specimens have been purchased by the United States Army Medical Museum. The original specimens, of which illustrations are given in the doctor's world-renowned and classical work, On Fractures and Dislocations, are to be found in this collection. The instruments were sold at private sale.

A Lynn (Mass.) grocer recently found beneath the top layer of raisins, in a newly opened box, two ugly looking knives, encased in leathern sheaths, a woman's lower jaw bone, and a woman's shoe of foreign pattern. One of the knives was fully eighteen inches long, while the other was about twelve inches in length. Both were of English make, bearing the Sheffield stamp. The entire surface of the blades was covered with blood-rust. The raisins were the best grade, known as Ondaras, and were imported from Denia, Spain.—*Nat. Druggist.*

Pereirine as a Tonic.—The bark of the pao-percira tree is said to be a tonic and febrifuge. It contains an alkaloid which was first isolated by Ezequiel in 1838. The name of pereirine has been given to it. The product of that name used in Brazil is an amorphous yellow powder, which is not a pure alkaloid, but contains a compound of amyl, a bitter coloring substance insoluble in water, analogous to glucose, a hydrocarburet, and another crystallized substance, probably a glycoside. Pereirine is very slightly soluble in water, to which it communicates a bitter flavor, but easily dissolves in ether. M. Guimaraes has proved that pereirine produces the following effects: (1) A period of agitation characterized by slight convulsive trembling of the skin, irregular respiratory movements, decrease of the central and peripheral temperature and of the pulse-beat. (2) A period of functional paralysis, consisting in aphonia, diminution in the number of respirations, elevation of temperature, paralysis of voluntary movements. (3) A period of complete paralysis ending in death. Pereirine, as sold commonly, is impure. M. Fereira has administered doses of two grams a day in cases of persistent paludal infection.—*British Medical Journal.*

A New "Cure for Cancer."—Dr. Velloso lays claim to having cured several cases of epithelioma of the face and lips with the juice of alvelos, a plant which belongs to the family of Euphorbiaceæ. It acted as an irritant, and destroyed the diseased tissue, which was quickly replaced by healthy granulations. Of the three different kinds of alvelos (male, female, and wild), the second is considered the most efficacious. It is found at Pernambuco, and although the natives have employed the juice for some time, it has not come into extensive use on account of the severe pain which it causes. The best results were obtained with the juice in a concentrated solid form, and with the addition of vaseline or lanoline. This preparation should be applied with a brush to the affected part (previously washed with a solution of carbolic acid), which should then be left exposed to the air for at least an hour. It should afterward be covered with lint. This treatment should, as a rule, be repeated every two or three days, and never more than once in twenty-four hours, as the pain of the application is severe. The treatment was more speedily successful when begun before ulceration had occurred.—*Ibid.*

Accidental Inoculation of Anthrax.—A case of a healthy farm-laborer contracting anthrax from a bull affected with the disease has recently occurred in Shropshire. It appears that, on November 25th, this man was required to slaughter a bull that had been taken suddenly ill, and was apparently in a dying condition; during the operation, his bare arm became smeared with the animal's blood. On December 2d, a small "boil" appeared on the arm. Other similar lesions subsequently developed, and the man became weak and ill; he was admitted into the Salop Infirmary on December 8th. After excision of one sore and cauterization of the others, the patient recovered, and by December 17th he regained his usual health. How the bull became affected with anthrax does not seem to have been as yet satisfactorily explained, but that it was anthrax from which it suffered has been established by competent examination of the animal's blood.—*Ibid.*

Justice. — The Supreme Court, Justice Sedgwick presiding, last week rendered a decision which has been received with much gratification by the entire profession. This reverses the judgment in the case in which Annelina M. Brown obtained five hundred dollars damages from Dr. Purdy, on the allegation that he had caused her to be placed in the smallpox hospital on Blackwell's Island when she was not suffering from this disease. Judge Sedgwick holds that there was no ground of action against the defendant, and states that it was the doctor's duty to report the case if he believed it to be of an infectious nature. He furthermore decides that the defendant was not, under any circumstances, liable, as the plaintiff was sent to the smallpox hospital by the sanitary inspector who had charge of the investigation of the case.—*Boston Medical and Surgical Journal.*

THE SURGICAL RELATIONS OF THE ILEOCECAL REGION.—Under this title Dr. J. McF. Gaston, of Atlanta, Ga. (the Journal of the American Medical Association, October 9, 1886), considers the frequent derangements of the ileo-cecal region. As a result of his investigations he formulates the following conclusions: "First, certain modifications are corrected spontaneously, or by the process of resolution under treatment. Second, in the earlier stage of ileo-cecal disorder, medicinal or mechanical measures are advantageous. Third, extra-peritoneal punctures and incisions are beneficial in cecal inflammation, with or without fecal abscess. Fourth, disorders involving the peritoneum, when not promptly relieved by general treatment, warrant exploratory opening of the abdomen. Fifth, impediments of the intestinal canal, or morbid accumulations in the abdominal cavity, accompanied by meteorism, call for immediate surgical interference, with laparotomy. Sixth, in case of simple stenosis or malignant growths involving the ileo-cecal connections, ileo-colostomy is indicated. Seventh, gangrenous portions of the intestinal canal necessitate resection, and either direct restoration by suturing the ends or the formation temporarily of an artificial anus. Eighth, operative measures in ileo-cecal derangements should not be delayed until the physical powers have become prostrated, but resorted to while there is capacity for reaction of the vital forces.

A SIX-FINGERED FAMILY.—An interesting communication, having reference to twenty-seven individuals and five generations, is summarized as follows in the *Revue Internat. des Sci. Med*, November, 1886. First generation: Man, born in the year 1752, had six toes on one foot. Second generation: A son with six toes on one foot; a daughter, normal. Third generation: This daughter had five children, among whom were a son and daughter each having six fingers on each hand. Fourth generation: The daughter last mentioned had eight children, including one son having six toes on one foot, another son and two daughters each having six fingers on each hand, and one daughter having both six fingers on each hand and six toes on each foot. Fifth generation: The daughter last mentioned (the *Revue* makes a mistake here) had three children, including a son, doubly deformed like his mother. and a son with six fingers on each hand, the feet being normal. Moreover, one of the two daughters of the fourth generation (with only the hands affected) had eight children, several of whom were normally developed, but the rest were deformed as follows: One daughter had an osseous thickening at the digital extremity and on the outer border of the fifth metacarpal; one son had six fingers on each hand, and six toes on each foot; and another son had six fingers on each hand. Thus, in the first generation, one person was affected, and in the second also one; in the third. there were two cases of deformity; in the fourth, five; and, in the fifth, in all five—that is, fourteen deformed persons altogether during five generations of this interesting family.—*British Medical Journal.*

THE INTERNATIONAL CONGRESS AND THE PREVENTION OF TROUBLE IN THE FUTURE.—In a notice of the organization of the International Congress, in *L'Union Médicale*, M. L. H. Petit says that it can not be denied that the profession in this country is very imperfectly represented in the list of officers, and expresses a natural regret that such is the case. The great advantage of medical reunions of this nature, he writes, is that they bring together men who are for the greater part known to each other only by their writings. And if the Americans best known abroad are not to be present, the main object of the congress will not have been accomplished. Without doubt the pleasures of the voyage. of the various excursions, and of visits to the large cities in the neighborhood af Washington will suffice to draw many Europeans across the Atlantic, but, he asks, will the picturesque side cause the scientific side to be forgotten? The remedy for such unfortunate family quarrels which the writer suggests is, that the organization of future congresses be intrusted to a permanent committee composed of men of every country. The members of this committee should be elected at the final session of one congress, and should be retired only after the committee on organization of the succeeding congress should have been definitely constituted. In other words, the affairs of the International Congress should be controlled by the members of the congress, and not by a local organization which may or may not represent truly the medical profession of one country. M. Petit suggested this plan at Copenhagen, and signifies his intention of introducing the measure again at Washington in 1887.—*Medical Record.*

Oleomargarine.—The French Chamber of Deputies has adopted a measure prohibiting offering for sale, importing, or exporting oleomargarine or any substance bearing the name of margarine, intended as a substitute for butter. The adulteration of butter with margarine, grease, oil, or any other substance whatever, is also forbidden.

Pepsin for Catarrh.—Recently one of our exchanges mentioned an observation made by a physician that pepsin was able to cure chronic and severe cases of catarrhal pharyngitis. This discovery was made by accident. The physician prescribed pepsin for dyspepsia, and the patient noticed an improvement of his catarrh. Larger and more frequent doses, to ten grains of pepsin several times a day, were then given for the catarrh, and the physician had the satisfaction of curing an inveterate case of catarrh. *National Druggist.*

Prof. William James, of Harvard College, will occupy the first place in the Popular Science Monthly for February with an unusually readable paper upon "The Laws of Habit." A very clear explanation, upon physiological grounds, of the way in which habits come to involve all the functions of the organism, growing with its growth, and hardening into permanency as it matures, makes this article invaluable reading for youth and for those who have the care of the young.

An Allopathic Dose.—A lady riding in the cars found herself by the side of an old matron, who was exceedingly deaf. "Ma'am," said she, "did you ever try electricity?" "What did you say, miss?" "I asked you if you ever tried electricity for your deafness." "Lor, yes! I was struck by lightning last summer, and it did n't do me a bit o' good."

Possible Danger from Pepsin.—It is suggested by Dr. Wood (Therapeutic Gazette) that, in ulcerated conditions of the bowels or stomach, pepsin may enter the blood and cause septicemia. Dr. E. Chenery reports a case which he thinks confirms this view.

Measles and diphtheria are very prevalent in New York at the present time, and the epidemic is on the increase.

Army and Navy Medical Intelligence.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from December 25, 1886, to January 15, 1887:

Major Egon A. Kocsper, Surgeon, United States Army, granted leave of absence for two months, to take effect about January 1, 1887. (S. O. 297, A. G. O., December 27, 1886.) *First Lieutenant John L. Phillips*, Assistant Surgeon, granted one month's extension of his leave of absence. (S. O. 297, A. G. O., December 27, 1886.) *First Lieutenant H. J. Raymond*, Assistant Surgeon, ordered for duty at Presidio of San Francisco, California. (S. O. 127, Dep. Cal., Dec. 29, 1886.) *First Lieutenant F. J. Ives*, Assistant Surgeon, granted one month's leave of absence with permission to apply for twenty-three days extension. (S. O. 1, Department Platte, January 3, 1887.) *Lieut. Col. Jos. C. Baily*, Assistant Medical Purveyor, ordered from Department East to New York City to take charge of the medical purveying depot in that city, relieving Capt. Henry Johnson, medical storekeeper, from duty as acting assistant medical purveyor. (S. O. 9, A. G. O., January 12, 1887.) *Maj. Harvey E. Brown*, Surgeon, granted leave of absence for six months on surgeon's certificate of disability, with permission to leave the division of the Missouri. (S. O. 9, A. G. O., January 12, 1887) *Capt. J. K. Carson*, Assistant Surgeon, ordered to Fort Cœur d'Alene, I. T.; *Capt. C. E. Munn*, Assistant Surgeon, ordered to Fort Canby, W. T.; *First Lieut. J. M. Banister*, Assistant Surgeon, ordered to Fort Cœur d'Alene, I. T. (S. O. 227, Dept. Colorado, December 31, 1886.) *Capt. Richards Barnett*, Assistant Surgeon, leave of absence further extended six months, on account of sickness. (S. O. 9, A. G. O., January 12, 1887.) *First Lieut. George F. Wilson*, Assistant Surgeon, leave of absence extended twenty days (S. O. 9, A. G. O., January 12, 1887.)

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. III. [NEW SERIES.] LOUISVILLE, KY., FEBRUARY 5, 1887. NO. 3.

> *Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.*—RUSKIN.

Original Articles.

ERYSIPELATOUS INFLAMMATION OF THE UTERUS.

BY E. J. KEMPF, M.D.

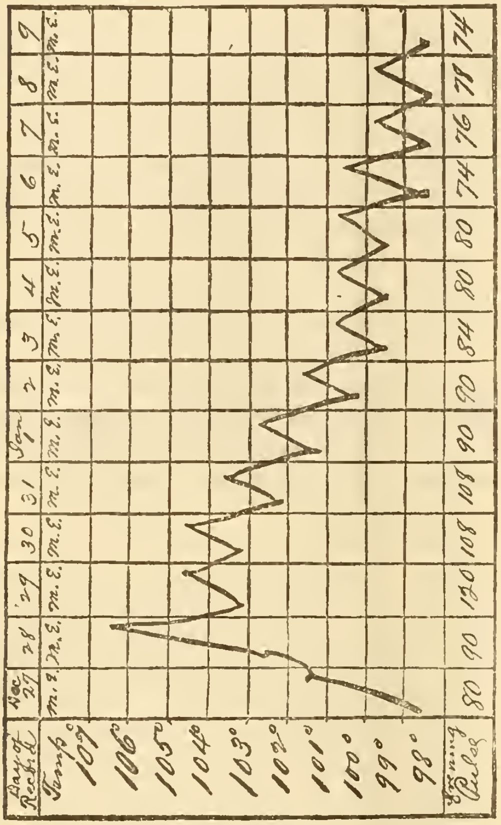
On December 25, 1886, I had under treatment a case of erysipelas of the face and neck of a severe form, the temperature going up to 105° F. several nights in succession. In the evening of the day, while I was sitting in my office, a messenger called me to Mrs. ——, who had become suddenly ill. I inquired after the probable cause of her illness, but received no satisfactory reply. I answered the call, and found the patient bleeding very alarmingly, which she was inclined to think excessive menstruation.

At the time and under the circumstances I forgot all about my case of erysipelas, and proceeded to examine the woman for the cause of the hemorrhage, after having first thoroughly washed my hands with soap and hot water, and then disinfected them with listerine, as is my custom always ere I put my finger or hand into a vagina. I found the os very rigid, dilated to the size of a half-dime, and with a clot of blood or something else protruding from it. I packed the vagina with borated absorbent cotton in the form of a tampon made in the usual way, and gave the patient fifteen drops of Parke, Davis & Co.'s normal liquid ergot. The bleeding ceased, and I had ample time to question the woman concerning her trouble. She informed me that she had not menstruated for nine weeks, and that her menses had reappeared two days before, but that she took no notice of the latter, because the bleeding was very slight and not accompanied by pain. She continued to do her work, went to church on Christmas-day, and carried a bucket of coal upstairs. After a hearty supper the hemorrhage became alarming, and I was sent for.

Without much doubt this was a case of abortion, and my case of erysipelas loomed up before me as "breakers ahead." But I had not the moral courage now to retreat from the case, and so I concluded to go on, but to use extra precautions in the way of disinfecting my hands. It is necessary to state, however, that I had on the same clothes in which I had visited my case of erysipelas.

After six hours the hemorrhage became again profuse. I removed the tampon and several clots of blood and made another examination, this time very carefully. The uterus was enlarged to about twice its normal size, and retroverted. The os was dilated to the size of a dime, still rigid. Protruding from the os was a soft mass about the size of a marble. As I could not introduce my finger through the os as yet, I once more applied a tampon and administered another dose of ergot. The hemorrhage was again arrested.

On the next day, December 26th, I removed the second tampon, and found the os dilatable. There being considerable bleeding and a good deal of pain, I introduced my index finger, previously well washed, disinfected, and the nail scrubbed with a nail-brush, into the uterus past the fetal mass up to the fundus of the uterus, and with little trouble I loosened the fetus from the fundus of the uterus, and removed it whole, as I thought. The bleeding ceased entirely and also the pain. As a precautionary method I gave the patient a full dose of ergot to assist the uterus in contracting, not only to prevent hemorrhage, but also to aid in the expulsion of any clots or debris that might remain within the uterine cavity. I then washed out the vagina with warm water, and left a few morphine powders, which were to be given if the woman complained of pain in the back or in the loins.



For twenty-four hours the patient did well, and then came the tug o' war. (See temperature table.) On the evening of the second day the temperature went up to 101° F. Not thinking this alarming, I gave the patient fifteen grains of quinine and a third of a grain of morphine, and ordered the nurse to give her a vaginal washing with warm water. On the next evening the temperature popped up to 106° F. This was certainly a dangerous degree, and I realized that if I wished to save my patient I would have to institute prompt and thorough treatment. It was plain enough to my mind that I had to deal with an acute infection of a wounded uterus with erysipelas poison, whatever that is, and that I was to a certain extent culpable for the state of affairs.

I first washed out the vagina with listerine and warm water, 1 to 24, and then I introduced a duck-bill speculum, which gave me a plain view of the uterus. The cervix was ulcerated and of a fiery red appearance, and from the mouth of the uterus hung a clot of mucus, which came away as I touched it with some borated cotton held by a long forceps. A scant serous discharge covered the neck of the womb. Without any difficulty I introduced through the os well up into the uterus a silk catheter, No. 11, which I connected by means of a rubber tube to a Davidson syringe, and I then cleansed the uterus with listerine and warm water, 1 to 40, working the syringe very gently. Next I wound some absorbent cotton around a uterine sound, dipped it into Churchill's tincture iodine, and introduced it into the uterus well up to the fundus, as I thought. I then applied some borated absorbent cotton thickly sprinkled with iodoform to the cervix of the uterus, cleansed the vagina with cotton, and removed the speculum.

I also ordered one thirty-second of a grain of bichloride of mercury every four hours, and came near poisoning my patient, severe vomiting and pain following the second dose. One sixty-fourth of a grain was now ordered, which still caused some discomfort. The eightieth of a grain was well borne, and was given every four to six hours. This with quinine, a saline cathartic, and brandy *ad libitum*, constituted the treatment. The vagina was thereafter washed out twice daily with listerine and water, 1 to 24.

The patient recovered, but had a tedious convalescence. No sequels.

This case may not be peculiar or interesting, but it certainly is a lesson, and as such I present it to the readers of the PRACTITIONER AND NEWS.

JASPER, INDIANA.

NITRITE OF AMYL IN OPIUM POISONING.—It is reported (*L'Union Médicale*) that a case of opium narcosis was relieved by nitrite of amyl after belladonna had failed and the patient was almost beyond help.

COMPOUND FRACTURE OF THE SKULL.*

Reports of Cases.

BY W. R. M'MAHAN, M. D.

CASE 1. On June 11, 1885, I was called to see James Dillon, of Pike County, Ind. He was a strong, muscular man, of medium size, aged twenty-six years. I found him in care of Drs. Harrington and Taylor, and upon examination we discovered a contused wound on the left side of the head, three inches long, and situated over the coronal suture. The wound gaped widely, and at its bottom could be seen a linear fracture of the skull, which began one half inch posterior to the anterior inferior angle of the parietal bone, and ran parallel with the coronal suture, crossed the sagittal suture, and was probably lost in the right parietal bone. Just below the temporal ridge was a line of fracture that left the linear fracture, above described, at a right angle, and passed backward one and a half inches, then upward two inches, and then forward and upward till it intersected the main line of the fracture. This quadrilateral piece of bone was depressed anteriorly one half inch, while its posterior border, though not depressed, resembled a greenstick fracture, the external table being partially broken, while the internal table seemed to have been bent. The patient was in a comatose condition, his lips puffing, pupils slightly dilated, pulse sixty-five, and respirations twelve per minute. This group of symptoms, taken in connection with the depressed bone, pointed with unerring certainty to the fact that he was suffering from compression of the brain.

The indication for treatment was clear. Dr. Taylor gave him a small amount of ether by inhalation, and I applied the trephine over the non-depressed bone opposite the point of greatest depression, so that the cut of the instrument included the line of fracture as well as the coronal suture. The trephine was worked rapidly until the diploe was reached, and then slowly and lightly until the internal table was cut through in one place. The instrument was then removed, and the button of bone, with a small portion of the internal table attached, raised with the end of the elevator, after which the remaining portion of the internal table was broken loose, forced up, and removed with the elevator. This I always do, thinking it safer to remove the trephine as soon as the internal table has been cut through at one single point, when, with the elevator, the remaining portion of the internal table can be easily removed without endangering the underlying dura mater. I then passed the end of the elevator between the bone and membrane, and raised the depressed bone by using the elevator as a lever and the uninjured skull as a fulcrum.

There was considerable hemorrhage, during and for some time after the operation, from some of the branches of the middle meningeal artery. This ceased after a little time. The wound was closed with a single interrupted suture, and dressed antiseptically.

His improvement was rapid and continuous. The coma rapidly disappeared, and his pulse and temperature scarcely rose above the normal. The scalp wound healed mostly by the first intention, and on the eighth day, contrary to my instructions, he was up and about town. His recovery seems to be complete, there being no subsequent motor or sensory disturbance.

CASE 2. On November 25, 1885, I was called by Dr. G. W. Baylor, of Milltown, to see Jacob Summers, living in Harrison County, Ind., two miles east of Milltown. He was twenty-one years of age, strong and muscular, and seemed to have been in perfect health prior to his injury. The injury had been received several hours before my arrival, and was caused by a sledge-hammer's falling from the top of a barn and striking him on the head. Upon examination we found a ragged scalp wound, two inches from before backward, situated over the parietal eminence on the right side of the head. At the bottom of this wound a deep depressed fracture of the skull could be seen and felt. He was lying in a semi-comatose condition, right pupil dilated, left normal; tongue when protruded deflected to the right; his voice when he was aroused was harsh and unnatural.

After a thorough examination of the case, we determined to raise the depressed bone, although it was night and the lamps were not good.

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*Read before the Dubois County (Ind.) Medical Society, at Jasper, October 19, 1886.

We gave him chloroform and extended the wound backward and forward until it was four inches long, and then crossed the wound with an incision at a right angle. After the tissues had been well raised from the skull and turned back we found a stellated fracture one and one half inches in diameter, the center of which was depressed three fourths of an inch, and from this center were eight lines of fracture running to the circumference. These fragments were not completely separated from their base, but were held firmly in place by the internal table, which seemed to be only partially broken. The fragments were so firmly locked that we could not separate or take away a single piece until we had removed a button of skull with the trephine. We then removed one of the pieces with the elevator and forceps, after which we had no trouble in removing the other seven. These fragments were taken away entire, for as soon as they were raised to their normal position they were found to be separated from the surrounding bone. The removal of these fragments left an opening in the skull one and one half inches in diameter, in addition to which was the opening made by the trephine. The dura mater had been pierced by one of the fragments, and from the wound so produced considerable blood escaped. After the bleeding had ceased the wound was nicely cleansed and the scalp wound closed with a single suture passed through the converging points of the flaps. This was covered with a piece of oiled silk, which had been dipped in carbolized olive oil; over this were placed five layers of antiseptic gauze, and over all the ordinary head recurrent bandage. The patient was then placed in a comfortable bed, and came from under the combined effects of cerebral compression and anesthesia within a short time. His improvement was rapid and uninterrupted. His pulse and temperature never rose above one hundred; the wound closed by the first intention with the exception of a small opening at the most dependent point, which was kept open by a slippery-elm tent.

Dr. Baylor remained with the patient during the night of the operation, and saw him several times a day until convalescence was established. To him I am under many obligations for valuable service rendered during the operation. His careful and intelligent after-treatment contributed much to the successful issue of the case.

Case 3. On December 4, 1885, Henry Brademeyer, a resident of Holland, aged forty-five, came to Huntingburg in search of work. While watching the stone-masons lay the foundation for the railroad machine-shops the derrick fell and struck him on the head, causing a compound fracture of the skull in the left parietal region. The scalp wound was one inch in length. He was removed to my office, and with the assistance of Drs. Schwartz and Lukemeyer, he was etherized, the scalp shaved and cleansed, and the wound enlarged by suitable incisions. We then learned that the point of fracture commenced on the left side, one inch below the sagittal suture, and one inch behind hind the coronal. The fracture was quadrilateral in form, three fourths of an inch wide from above downward, and one and one half inches long from before backward. The piece of bone included in the line of fracture was depressed one half an inch anteriorly to a depth of a little more than the thickness of the skull. The posterior end was not depressed, being still attached to the adjacent bone. He was suffering from concussion of the brain, but there were no well-marked symptoms of compression. The trephine was placed in front of the depressed piece of bone and a button of skull removed. The elevator was passed under the depressed bone and it was raised to its normal position without difficulty. The wound was thoroughly cleansed and closed over a bone drainage-tube with interrupted sutures, and then dressed antiseptically.

The wound healed by first intention throughout its length, except at the place through which the drainage-tube passed. The tube was removed on the tenth day, and the wound closed on the fifteenth. Not an unfavorable symptom appeared after the operation.

Case 4. On March 20th I was called to see William Moenkhaus, of Huntingburg, aged fifty-four, who was thrown from a buggy while crossing the railroad track. His head struck the steel rail, which produced an extensive lacerated scalp wound and fracture of the skull.

I found him retching and vomiting almost constantly, hands and feet cold; blood was trickling from the scalp wound, and a small stream of blood issued from the left ear. The case seeming to be a desperate one, I requested Drs. Williams, Schwartz, and Lukemeyer to be called in consultation, and upon their arrival I had the patient carried to his home upon a stretcher. We then placed him under the influence of an anesthetic, extended the wound backward and forward with an incision, and raised the scalp for quite a distance from the skull. We discovered that the point of fracture commenced near the anterior-superior angle of the left parietal bone, and passed backward and slightly outward, crossed the lambdoidal suture one inch to the left of the termination of the sagittal, passed through the occipital bone, and, as we believe, involved the petrous portion of the temporal bone. Near the center of the parietal bone, from before backward, on the left side of the line of fracture, was a piece of bone, one inch square, that was depressed about one sixteenth of an inch. This depression seemed so slight, and the linear fracture of the vertex, extending downward and involving the base of the skull, so extensive, that we determined not to raise the depressed skull. After thoroughly cleansing the wound we closed it with a single interrupted suture and applied a compress and bandage. We gave the patient ten grains of calomel, and, as soon as reaction commenced, three drops of the tincture of aconite every two hours, while cold applications were made to the head.

During the first twenty-four hours after the injury blood continued to escape from the left ear, and every few hours the patient would vomit two or three ounces of blood that had passed through the eustachian tube into the pharynx, and thence into the stomach. There were clonic spasms of the muscles of the right arm and leg. After this time there were neither hemorrhage nor spasms, but he was exceedingly restless and delirious most of the time, with a slight elevation of temperature in the evening, till the ninth day after his injury, at which time motion in the right leg and arm became impaired, and his tongue, when protruded, was deflected to the left side. His pulse ranged between sixty and sixty-five per minute. The pupils were sluggish, and there was a tendency to coma.

On the tenth day the symptoms denoting compression were more marked, and we determined to trephine and raise the depressed bone. The patient was etherized, and, with the assistance of the consulting physicians named, I reopened the scalp wound and applied the trephine over the upper portion of the parietal bone opposite the center of depression. The cut of the trephine included the line of fracture as well as a part of the sagittal suture. When a button of skull had been removed we found a thin blood-clot separating the membranes from the skull. This was removed, and the end of an elevator passed under the depressed bone, which was raised to its normal position, though it required the application of a great deal of force to do it. After all coagulated blood in the vicinity of the trephine opening had been removed, the wound thoroughly cleansed, its edges drawn together, and an antiseptic dressing applied, the patient was placed in bed.

He came from under the influence of the anesthetic in a short time and said he felt some better. His tongue, when protruded, was nearly straight, and became entirely so within twenty-four hours after the operation. His improvement from this time was slow but continuous, and in two months from the date of operation he was attending to his ordinary business.

These four cases have occurred within the last fifteen months, and all of them have perfectly recovered. The first, second, and fourth, and probably the third, would have died if the depressed bone had not been raised. There are very many deaths and many diseases of the nervous system due to injuries of the head which might have been prevented by prompt and intelligent surgical treatment. The causes tending to these results are, first, the opinion existing in the minds of many physicians and surgeons that the operation of trephining is only to be thought of as a *dernier ressort*, and that the operation is both difficult and dangerous. Second, the superficial examination and discharge of patients that have received, as we suppose, a slight head injury, while in fact it is severe. Third, too great conservatism in the management of cases of compound fracture of the skull as indicated above. Fourth, the abandonment of grave cases. Liston wrote, "No injury of the head is too slight to be despised or too great to be despaired of."

The operation of trephining is simple, easy of execution, and comparatively free from danger. It should certainly be done much oftener than it is for the relief of head injuries. We as physicians should be very careful in the examination of all patients that apply to us for the treatment of head injuries, even though they may seem to be slight. A small dentated fracture has often been concealed under a very slight scalp contusion until a time too late for the needed relief. Indeed, it is quite often that extensive fractures and even comminution of the cranial bones occur from the application of force that has not divided the tissues of the scalp. Hence the importance of thorough, careful, and painstaking examination in these cases.

In all compound fractures with depression amounting to one sixteenth of an inch, we should raise the depressed bone at once, either with or without trephining as the case may be, and not wait for the classical symptoms of compression to develop. In simple fracture, where there is one fourth of an inch of depression, and the depressed bone is fixed in its new position, we should make suitable incisions and raise the depressed bone.

In cases of head injuries wherein there seems to be no ground of hope for a successful issue we should not relax our efforts, but remove all foreign substance, raise depressed bone, control hemorrhage, and take away any penetrating spiculæ, should they be present. If in addition to these procedures the wound be dressed in accordance with strict antiseptic principles, our efforts will often be rewarded with success. The trephine should not be placed over the sutures or along the course of the middle meningeal arteries when it can be avoided; but each case of head injury is a law unto itself, the construction of which devolves upon the attending physician or surgeon.

Huntingburg, Ind.

A CASE OF OVARIAN CYST OBSTRUCTING LABOR.

REPORTED BY JOHN G. CECIL, M. D.
Assistant to Chair of Obstetrics and Diseases of Women and Children, University of Louisville.

Mrs. W., white, aged twenty-three, married three years, primipara, well formed and healthy, previous history clear, supposed herself to be at full term and expected confinement on or about October 9, 1886. She was not cognizant of any thing abnormal in her condition.

On the 13th of October pains came on which simulated labor pains. Physicians were called, but did not find her in labor; upon vaginal examination, however, they discovered a tumor obstructing descent of the gravid uterus. These false pains continued with varying severity, effecting no progress during the 13th, 14th, and 15th, when the case came into the hands of Dr. Turner Anderson, Professor of Obstetrics and Diseases of Women and Children, University of Louisville, upon the recommendation of the regular medical attendant, who was unavoidably called from the city. On the 16th a consultation with Drs. Ouchterlony and Cecil was held.

Vaginal examination at this time showed the uterine neck not entirely obliterated; the os tincæ being yet closed. No trouble was experienced in discovering a vertex presentation in the first position. Behind the cervix and anterior to the rectum, occupying Douglas' *cul-de-sac*, a firm elastic tumor filled the posterior half of the true pelvis. Pressure on the tumor elicited some pain. The patient, though nervous, and suffering some nausea, probably due to the administration of morphine, was not much exhausted.

It being evident that labor could not progress unless the obstruction were removed, and it being equally evident that immediate relief must be obtained, the question of procedure was considered. An operation for removal of the tumor at this time was not deemed advisable. Aspiration was proposed and agreed upon, to be immediately followed by induction of labor. From the size of the abdomen and the condition of the cervix, it was estimated that gestation had advanced to about the eighth month. An attempt the day before to displace the tumor into the abdominal cavity, with the patient lying on her side, having failed, another effort at this time was made at the suggestion of Dr. Ouchterlony, with the woman in the genu-pectoral position. Firm pressure by Dr. Anderson with two fingers for four or five minutes per vagina and rectum solved the difficulty and resulted in the displacement of the tumor into the cavity of the abdomen. The superior strait now being clear, nothing remained but to encourage the descent of the fetal head as rapidly as possible. Accordingly, at 1:30 P. M., on the 16th, eight inches of a large Nelaton catheter were coiled up in the womb, the end of the instrument tied to the thigh, and the patient told to lie in the prone position. At 5 P. M. the same day active labor pains came on. Labor from this time went on without hindrance or unusual delay. It could not be definitely ascertained when the membranes ruptured. At 3 A. M., on the 17th, a vigorous, well-formed female child, weighing about six pounds, was delivered by Dr. Cecil, which, from appearance, lacked about three weeks of being at full term. After delivery a tumor near the size of a large orange, occupying the right hypochondriac region, could be defined, which was diagnosed an ovarian cyst.

This was assuredly a happy solution of what promised to be a difficult case. It is true, the tumor remains; what effect the process of involution of the uterus and other organs will produce on it remains to be seen by subsequent observation. The result of aspiration, of course, can not be known; though untried, it certainly was indicated, and would have been practiced in the event of failure to dislodge the tumor.

LOUISVILLE.

A PECULIAR METHOD OF GYNECOLOGICAL EXAMINATION.—Omaha seems to have a gynecologist whose methods are decidedly unique. He has a large, unwashed old dress of his wife's in his office, and all patients are directed to remove every article of clothing and then to don this dress preparatory to ascending the table. While on the table no effort to prevent exposure is made. All his patients are compelled to receive local uterine treatment daily and straight through the menstrual period as well. *Medical Record.*

INTRA-NASAL INFLAMMATION (RHINITIS).*

Some of its Results and their Rational Treatment.

BY J. MORRISON RAY, M. D.

Surgeon to the Eye, Ear, and Throat Departments of Sts. Mary and Elizabeth and Louisville City Hospitals. Formerly House Surgeon Manhattan Eye and Ear Hospital, N. Y.

There is perhaps no organ of the physical economy more hastily discriminated against than the nose. Patients complaining of symptoms referable to this organ are told that they have catarrh by practitioners of wide general knowledge, who make this loose diagnosis, and prescribe for the case without troubling themselves to examine the nasal chambers. Largely on this account has the notion become prevalent that a person once the subject of catarrh must resign himself to fate, with the full belief that the disease will result in foul breath, exfoliation of the nasal bones, and numerous other horrible sequelæ. This neglect of a proper examination of cases of nasal disease conjoined with the idea that inflammation of the nasal passages, or so-called catarrh, is a disease peculiar in itself, and one about which little or nothing is known (none save the quack professing a sure cure of it), is responsible for the fact that the disease has long been regarded as one of the *opprobria medicinæ.* For the reasons stated I have thought it well to lay before this Society a few facts relative to nasal inflammations, and by direct clinical proof to show that the case against the affections thus classified and located has been unjustly made.

The portions of the nasal passages involved in acute and chronic inflammatory changes are the septum and the coverings of the middle and inferior turbinated bones. The septum, besides being often the seat of chronic inflammatory thickening, is, in a large number of cases of nasal stenosis, found to deviate to one side or to be so bent or twisted as to cause a narrowing of both passages. Whether the deviation of the septum is the cause or effect of the nasal inflammation always present in these cases need not concern us here. The covering of the middle and inferior turbinated bones differs from the rest of the lining of the respiratory tract, in that it contains erectile tissue.

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* Read before the Louisville Medico-Chirurgical Society, January 14, 1887. Discussion, see page 74.

The local changes observable in inflammatory diseases of the nasal cavities may be classified under three heads: Simple Rhinitis, Hypertrophic Rhinitis, and Atrophic Rhinitis. These are usually attributed to the same causes; the second being an advanced stage of the first, and the third of the second. To this view I can not quite agree. I have seen simple rhinitis merge into the hypertrophic form, but never the hypertrophic into the atrophic. My observations lead me to consider the atrophic form a distinct disease, possibly due, as Lowenberg claims, to a bacillus. Be this as it may, I most often see atrophic rhinitis in young people, and in females especially, who have no previous history of hypertrophic rhinitis. Again, I have seen the hypertrophic form exist for years without any tendency to atrophy.

Simple chronic rhinitis is the sequence of recurring attacks of acute coryza. Its distinguishing features consist in an enlargement of the turbinated bodies by distension and permanent dilatation of the erectile spaces. The local appearances consist in a dark red hue of the mucous membrane and marked prominence of the turbinated bodies, which have a boggy feel, pitting on pressure and contracting under cocaine. The subjective symptoms are transitory stenosis, very annoying when the patient is suffering from an acute exacerbation, and the presence of an excessive secretion of mucus or muco-pus, which may be expelled from the nose, or trickle down behind the velum, giving rise to annoying paroxysms of coughing, especially when the recumbent posture is assumed. This distension may be slight at first, occasionally resulting in nasal stoppage, but, by increase in the amount of irritation to which the mucous membrane is exposed, it rapidly increases until the nasal tissues become permanently enlarged. The walls of the erectile spaces are thickened by organized connective tissue, new blood-vessels are formed, and gradually they assume the form of polypoid masses. This hypertrophy is most often found at the back ends of the lower turbinated bones, and on inspection through the posterior nares will appear as irregular masses, often as large as and very much the color of a raspberry. This thickening being permanent, nasal respiration is lessened or quite shut off, and mouth-breathing, together with pharyngeal and laryngeal inflammation, in the order named, follow in its wake. By a proper appreciation of the statement just made, cases of obstinate pharyngeal and laryngeal trouble can be intelligently dealt with, as I have often seen demonstrated. Indeed, cases of so-called irritative laryngitis rapidly improve by treatment directed solely to the nasal cavities.

What I would most especially emphasize is the treatment of simple rhinitis and its advanced stage, the hypertrophic form. Within a few years great advances in this direction have been brought about, chiefly by the invention and general adoption of the cold-wire snare and the galvano-cautery.

All innovations in medicine, especially if harmful results can possibly follow, will be condemned by some, while others give them unstinted praise. This can be truly said of the surgical treatment of nasal diseases. Since its general adoption many have ascribed unfortunate results to the use of acids and the galvano-cautery; maintaining with fervor the dictum of Mackenzie, who, in his latest work, after cautioning against too active surgical interference, says " the young practitioner has often been influenced to clear the nose with a zeal and energy worthy of the industrious backwoodsman." We know that unfortunate results may follow the formation of too much cicatricial tissue in the nose, but we presuppose that those who attempt such measures will be thoroughly conversant with the possibility of such disasters, and so do as little as is required to correct the existing evil, and this under full illumination of the part treated. Any one who will give it a thorough trial can not but come to the conclusion of a recent authority, who says " there is no other disease in the domain of him who confines himself to the treatment of diseases of the upper respiratory tract which is attended with more satisfaction to the surgeon or more permanent relief to the patient than the galvano-cautery in nasal hypertrophies." The points here made can be best shown by the analysis of a few cases.

Case 1. Mr. ——, clerk in a large dry-goods store, first consulted me in June, 1885. The following symptoms were complained of: For several years he had suffered from the effects of cold on the slightest exposure. For some time these would pass off quickly, but in recent months it has seemed as if the condition had become permanent. The nostril would become occluded, and at night all breathing through the nose was impossible, mouth breathing being a necessity. Frequently, when asleep, he is awakened by violent suffocative attacks, caused by the accumulations falling down into the larynx; his mouth is dry, and the teeth are covered with dried secretions in the morning. He has been treated by a competent practitioner by means of the atomizer. He says for a few minutes after using the spray the nose feels open, but in the course of a few hours it again becomes occluded. On examination through the anterior nares I found the mucous membrane covering the septum and turbinated bones of a deep red hue. Breathing through the nostril was free. By posterior rhinoscope the same condition was apparent. No true hypertrophy could be seen. By pressure with a probe the tissue would pit, the pitting disappearing slowly. Under cocaine marked diminution in the erectile tissue was apparent. He was pale, anemic, and suffered from dyspepsia, due to overwork and confinement. I ordered him to discontinue the spray as before employed, to try a mild alkaline solution warmed, and to apply cold ablutions to the throat and chest. Out-of-door exercise was enjoined, and he was ordered a mixture of Fowler's solution, acetate of potash, and wine of iron. I saw the patient no more professionally until April, 1886, when he again consulted me, saying he had followed out my orders for a time with little or no relief. He then tried a patent medicine. This excited his nose and made it much worse. He has now about abandoned all hope, and would be compelled to quit work if relief were not found. On re-examination I found the turbinated tissue much distended, on one side reaching the septum, thus almost obliterating the caliber of the nostril. Posteriorly the back end of each inferior turbinated body presented a small nodulated mass the size of a bullet, which projected into the naso-pharynx. The left nostril was also somewhat diminished in size by a shelf-like projection from the septum. With the Jarvis cold-wire snare, after careful manipulation, I removed the growth from the back end of the lower turbinated body. After the surface had healed, I destroyed the thickening on the septum with the galvano-cautery, and then applied to the whole visible surface of the inferior and middle turbinated bodies, by means of a flat cotton carrier, mono-chlor-acetic acid, cocaine being first applied to secure insensibility. This application was repeated several times during the succeeding two months. Nasal breathing became freer; the excessive secretions diminished; and at this time the patient looks much better, while he has gained several pounds in weight.

When first seen this was a case of simple chronic rhinitis, with distension of the turbinated tissue, and no visible true hypertrophy. I hoped it would subside by the use of mild measures, and so followed the example of Cohen, who, in describing similar cases, says: "The two great principles of treatment are to keep the parts clean so as to give them a chance to get well of themselves, and to take care of the patient's general health." I think, if I had been more aggressive from the start, and had judiciously applied the acid to the turbinated tissues so as to contract them and relieve the stenosis, the case would have gotten well at once. As it was, true hypertrophy developed, and the measure resorted to was the only course to be pursued with a view to permanent benefit. This statement seems to be borne out by the following case:

Case 3. Chiply, an elevator boy at one of the hotels, came to me August 14, 1886. He said he was continually annoyed by the stoppage of one or both nostrils, and that while running the elevator the draft of air coming through the shaft kept him continually sneezing. This has been very bad of late, and last summer at about the same time he was troubled in like manner. This led him to believe that he was developing hay-fever. Nevertheless he suffered in some degree at all seasons. The turbinated tissue was found distended, nasal breathing was interfered with, and the voice had a nasal twang. Posteriorly no true hypertrophy was noticed. I applied cocaine, which thoroughly contracted the projection, and then, with the galvano-cautery passed to the back end of the tissue, I drew it forward while at the point of white heat and burned a furrow the whole length of the projection. In the course of three weeks other swellings were dealt with in a similar manner, and the sensitive membrane touched lightly at other parts. Nasal breathing in a short time became permanently established, the irritability diminished, and the patient expressed himself as much relieved.

These two cases are typical examples of a number that I have seen, in which a satisfactory result could be obtained only by the use of mono chlor-acetic and chromic acid, or the galvano-cautery. The fact that cases of true hypertrophy of the mucous and submucous tissues over the turbinated bones can not be resolved by the use of sprays or powders will not be denied by any one familiar with the pathological histology of these growths. Yet the means to be resorted to for this almost sure relief are not, according to my knowledge, in general use even by specialists. Dr. Harrison Allen says: "I have resorted to all means suggested by the authorities, but have always returned to the galvano cautery. I believe that it is the best single agent at our command to relieve nasal disease. It may be applied lightly without destroying the surface, or a deeper eschar may be produced, having a purely destructive effect. Between these two extremes there is ample proof that various therapeutic effects may be secured." This has been exactly my experience, and is what I have attempted to accomplish by its use. Case 4 shows its result:

Miss M. was seen by me in the fall of 1885. She suffered much from nasal stenosis and a disagreeable, dead voice. The entire lower turbinated bone was enlarged by true hypertrophy, so much so that I could not manipulate the Jarvis snare in such a way as to properly grasp it. After several fruitless attempts I abandoned it and brought into service the galvano-cautery. The hypertrophy was cautiously cauterized and time given for the surface to heal, when the cautery was again applied, cocaine being used to allay the little pain thus caused. In the course of two months nasal respiration had become permanently established. The disagreeable voice disappeared, and the patient expressed herself as much relieved.

At a recent meeting of this Society I exhibited a growth removed from the lower turbinated bone of a lad who suffered much from nasal occlusion. Subsequently I used the galvano-cautery on the anterior portion of the lower turbinated bone. I saw this boy a few days ago, the first time for three weeks, during which time he says he has not suffered once from stoppage of the nose. Since writing this I have discharged the patient.

Numerous other illustrations could be given of the beneficial results gained by the use of the galvano-cautery, particularly in hay asthma and reflex spasmodic asthma, but I have given enough to show that cases of nasal and naso-pharyngeal diseases exhibiting hypertrophy of of the mucous membrane or hyperplasia of the glandular tissue require for their successful treatment the application of some destructive agent, either mechanical or chemical.

Louisville.

Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting January 14, 1887, the President, Dr. H. A. Cottell, in the chair.

Dr. J. M. Ray read the essay of the evening, the subject being Intra-Nasal Inflammations (rhinitis), some of its results, and their rational treatment. (See page 71.)

Discussion.—Dr. Cheatham said that the classification of the hypertrophic form of nasal diseases might be made into two divisions:

1. Enlargement from engorgement.
2. True hypertrophy.

These hypertrophic cases suffer from the effects of colds more than others. Chronic nasal disease is a frequent cause of hay asthma and also of spasmodic asthma.

Most cases of hypertrophy require for relief some destructive agent, such as the galvano-cautery. Cocaine interferes with the use of the galvano-cautery, rendering the cicatrix less firm. It also counteracts the effects of chromic and acetic acids.

Dr. Coomes said that no affection involving the upper respiratory passages gives so much trouble or as little satisfaction in treatment as nasal stenosis. Has never used the galvano-cautery. In some instances he has amputated the growth with scissors. The hemorrhage is severe, but can be controlled. He usually makes a simple incision in the growth and leaves it to contract with cicatrization.

He has seen five cases of dry atrophic catarrh, four males and one female, and regards this form of the disease as incurable and amenable only to palliative measures. Great care should be taken to locate the sensitive area when using the cautery. He had found this procedure of benefit in two cases, one of them only being a clearly marked case. He has found treatment by sprays, powders, etc., ineffectual.

Dr. Scott does not agree with Dr. Cheatham that nasal troubles predispose to colds, but thinks the local trouble in the nose to be rather the result of colds. These cases are usually not cured, and the patients generally return with the same trouble or seek aid elsewhere.

Personally Dr. Scott has been a sufferer from this affection, and has been benefited by the improvement of general health and the use of heavy woolen underwear in the winter.

Our patients should be instructed to exercise proper care in regard to dress, exposure to damp, and sudden changes.

Dr. Vance said that certain cases of nose and throat trouble were cured by outdoor life. While in camp in Breathitt County, a few years ago, several of the soldiers who had suffered from nasal catarrh were much benefited by the mode of life imposed by the service.

Dr. Cartledge thought that no one procedure would suffice for all cases; different cases required different methods of treatment.

Dr. Ray, concluding, said he had divided nasal inflammations into three classes:

1. Simple rhinitis.
2. Hypertrophic rhinitis.
4. Atrophic rhinitis.

But these are held to be successive stages of the same disease. The first is a simple distension of the erectile bodies. In the second the effusion is organized, and the condition then becomes one of hypertrophy. In the course of time the hypertrophied membrane wastes, and we then have the atrophic form. He would emphasize the statement that no benefit was derived from sprays and powders. The offending tissue must be removed by surgical procedure. There is much truth in the assertion that what we need is not more throat doctors, but more throat surgeons.

When the growths are large or can be readily grasped, he thinks the cold-wire snare the best; that failing, resort should be had to the galvano-cautery or mono-chlor-acetic acid. He had not found that tobacco smoking had any thing to do with these troubles, but that it had some influence in keeping it up.

Dr. McGuire reported a case of vesicular eruption from iodide of potassium in a woman who was being treated for syphilis. Eleven grains of the iodide had been taken three times a day for ten days. Syphilis seldom produces a vesicular eruption, and this speedily passed away on leaving off the iodide. The character of the eruption rendered the diagnosis conclusive.

Dr. Rodman had seen the case at one time, and the eruption was then limited to a spot of the size of the two hands. He advised another trial of the iodide, to see if it would produce a similar eruption.

Dr. Larrabee thought that iodide of potassium, while being eliminated through the skin, would come in contact with mercury, form potassio-mercuric iodide, and thus be very likely to prove sufficiently irritating to produce a vesicular eruption.

Dr. McGuire said that the case had not been treated with inunctions of mercury, and that in the majority of cases in which iodide of potassium has been given, iodine has not been found in the vesicles. These eruptions are due to neuroses. Professor Morrow puts it in the form of a syllogism: "Drug eruptions are determined by idiosyncrasy. Idiosyncrasies are neuroses; therefore drug eruptions are neuroses."

J. M. RAY, M. D.,
Secretary.

DR. WM. C. WILE, editor of the New England Medical Monthly, has been appointed lecturer on nervous diseases and electro-therapeutics in the Medico-Chirurgical College of Philadelphia.—*Ex.*

ACADEMY OF MEDICINE (PARIS*).

REPORT OF DEATH SUPPOSED TO HAVE RESULTED FROM PASTEUR'S INOCULATIONS.—Dr. Peter reported a case of death from paralytic hydrophobia, subsequent to anti-rabitic and intensive inoculations. The case had been observed in the practice of Dr. Miquel. It was that of a young man twenty years old, bitten on the finger by a dog recognized by its owner as rabid. The young man, without using the cautery, repaired immediately to the laboratory of M. Pasteur, which he reached within forty-eight hours.

The inoculations were performed in the hypochondriac region, according to Pasteur's new intensive method, three times a day for twelve days. On the 12th of last December the young man experienced a premonitory symptom of considerable importance, namely, a pain which shortly became constant at the point of the punctures of anti-rabic inoculation, and not at the point of the scar from the bite on the finger. There soon came on a feeling of general *malaisé* and extreme weakness. The following day (Sunday) was passed by the patient motionless and in sadness. Monday the weakness increased; the patient was not able to quit his room, and took with difficulty some nourishment. Tuesday he was strictly confined to bed, and Thursday he died, just six weeks after the bite.

Dr. Miquel verified the death and a foamy slaver at the mouth. The accounts given to Dr. Miquel on the 16th of December, and to Dr. Peter on the 30th of December, are to the effect that on the third and fourth days of the disease the patient had spasms of the throat and inability to swallow liquids. He had no convulsions, but weakness and paralysis. Dr. Peter would insist on two points. The first is that the premonitory pains did not show themselves first in the bitten finger, but at the location of the punctures made for the anti-rabitic inoculations; the second is that the symptoms were not those of ordinary hydrophobia, since apart from the esophageal spasms the symptoms were not convulsive, but paralytic.

Dr. Dujardin-Beaumetz did not find the facts reported by Dr. Peter conclusive. In substance, the case is that of a young man bitten by a rabid dog, treated by anti-rabitic inoculation, and finally dying while foaming at the mouth. But the particulars given are not sufficient to decide that the young man had died from rabies and to make a breach in the treatment of hydrophobia. The majority of the symptoms of the disease are wanting, such as aerophobia, hydrophobia, and the constant spitting. Finally, hydrophobia paralysis is exceptional in man.

Dr. B. thinks it is wisest to distrust coincidences and not to make lightly a diagnosis of hydrophobia. On this subject he remembered the case of a child bitten by a rabid dog, treated by the intensive method, and who, one month after having received a blow of the fist in the side, experienced a sharp pain at this point, took to bed and died with convulsive phenomena. The disease was pronounced rabies. But an autopsy was made, and the medulla inoculated on animals did not produce rabies. The child had succumbed to a disease of a uremic nature.

Dr. Brouardel will report at an early day his observations on the child just spoken of by Dr. Dujardin-Beaumetz. In this case the urine has been examined and contains a perceptible quantity of albumen.

CHICAGO MEDICAL SOCIETY.

Stated Meeting, December 20, 1886, the President E. J. Doering, M. D., in the chair.

Dr. Hosmer A. Johnson read a paper on Pseudo-membranous Bronchitis.

Pseudo-membranous bronchitis is rarely met with. In making this statement I exclude the persistence of a diphtheritic bronchitis and croupous pneumonia, in both of which diseases the expulsion of false membranes may occur. It is, perhaps, not always easy to make an absolutely correct differential diagnosis of these cases. This difficulty rests upon the fact that (1) membranous inflammation of the bronchii of an acute character, such as diphtheria, may become chronic. I have seen several such cases, but in all of them the acute stage had been well marked, and the chronic condition seemed to be only delayed convalescence. (2) Croupous pneumonia may certainly become chronic, but so far as my own experience enables me to judge, the membranous exudate, if present, disappears with the acute stage.

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*Translated by Dr. D. T. Smith.

The literature of the subject is quite voluminous in titles, as may be seen by reference to the index catalogue of the library of the Surgeon-General's office, but the number of cases is small.

Among the cases reported in our own country, one by Dr. W. C. Glasgow, of St. Louis, in a paper read before the American Medical Association for the year 1879, is especially noticeable. In this article the author embodies the experience of several of the more prominent physicians of the United States.

Dr. Richardson, of New Orleans, "in a practice of nearly a third of a century" had "never encountered a case of plastic bronchitis."

Dr. Geddings, of Aiken, South Carolina, had "never met with a case." It should be remembered that Dr. Geddings had a very large experience in lung troubles.

Cases have been seen by Drs. F. P. Porcher and T. G. Simons, of Charleston; James H. Hutchinson, of Philadelphia; R. H. Fitz, of Boston; Roberts Bartholow; J. R. Leaming, of New York; Austin Flint, sr.; Gleitzman, of Asheville, N. C.; J. M. Da Costa and Alfred Stillé, of Philadelphia; P. E. Robinson, of St. Louis; Maxwell; Samuel G. Armor, of Brooklyn; Frank Donaldson, of Baltimore, and Baumgarten, of St. Louis.

These facts, collected by Dr. Glasgow in 1879, perhaps fairly represent the experience of the profession in America. I am, however, inclined to think that these meager statistics of the practice of some of the most active physicians and careful observers by no means give a correct estimate of the relative frequency of the affection. I imagine very many cases are never diagnosed, or if seen and recognized they are not recorded, and therefore lost sight of.

In the records of literature upon this subject there are reports by L. H. Angel, Chicago Medical Journal, 1859, pp. 501 to 504.

J. S. Cohen, "Transactions of the Pathological Society," Philadelphia, 1876.

J. H. Hutchinson, "Transactions of the Philadelphia Pathological Society," 1874.

Austin Flint, sr., Medical Record, 1874.

A. L. Payne, Stethoscope and Virginia Medical Gazette, 1852.

J. C. Reeves, "Pathological Society," Philadelphia, 1859.

P. G. Robinson, St. Louis Medical Journal, 1878.

S. Rogers, "Transactions Medical Society of New York," 1866.

L. Smith, Medical Record, 1872.

T. H. Streets, American Journal Medical Sciences, 1880.

E. D. Worthington, Canada Medical and Surgical Journal, 1876.*

These, in addition to the case reported by Dr. Glasgow, comprise all the titles I am able to find in the United States and Canada. They evidently include also some of the cases referred to in the correspondence reported by Dr. Glasgow and briefly summarized above. In some of these cases it seems to me there was simply an acute or diphtheritic inflammation, running its course in a few days and terminating in death, with such symptoms as are seen in the ordinary forms of diphtheritic inflammation.

Among foreign authorities the reports are also meager. Eichhorst, in the last German edition of his work on Special Pathology and Therapeutics, finds only one hundred cases on record. The article in Ziemssen's Encyclopedia gives a very clear statement of what is known as to the etiology and pathology of the affection. Among other writers, Cheyne thinks old age predisposing; Valleix doubts this. Gintrac says that the larger number of cases are observed in adult life. If we exclude the cases of diphtheria extending to the bronchii, this is true.

The male sex is predisposed to the affection according to most authorities. Enfeebled health from previous disease, poverty, fatigue, exposure, are among the most common causes noted. Of course all these are so many synonyms for ignorance. The cause remains to be discovered. It may be some local colony of parasites. The relation of this disease to the ordinary forms of membranous inflammation, in some of which bacteria are believed to be a pathogenic factor, suggests this, and perhaps makes it probable.

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*Dr. J. W. Holland, of Philadelphia has reported one case, Louisville Medico-Chirurgical Society.—Eds.

The relations to antecedent diseases are by no means constant; neither diphtheria, nor simple bronchitis, nor pneumonia, except in rare instances, eventuate in chronic pseudomembranous inflammation of the bronchial tubes. Rugel says "a special predisposition, or the influence of some special unknown agency is always essential in addition" to the hypothetical causes enumerated.

The pathology of the affection is better understood. There is an exudate which coagulates upon the surface of the mucous membrane. This is often laminated by successive deposits. In the meshes of this coagulum a few leucocytes are found. The membrane proper is not necrosed, but continues to produce epithelium, and the exudate is pushed off by the multiplication of this epithelium, which in turn degenerates, becoming fatty and purulent. It seems also to be certain that while the mucous membranes do not become the seat of necrosis they do become the seat of morbid processes, possibly similar to that which in the endothelium of blood-vessels determines the formation of a thrombus, and which in this case determines the formation of a plastic deposit.

The patient in the case which I beg to report is G. T. P., aged thirty-seven years, a native of the eastern shore of the Adriatic. The family history on both sides is good. He enjoyed good health as a child and during early manhood; at seventeen had a suspicious sore, but apparently escaped any other manifestations of specific disease; was for several years a sailor, but abandoned that calling at the age of twenty-five; has been for some years keeping a saloon. Eight years ago he gives a history of pneumonia involving the right lung; was six weeks ill. His general health from that time was good, until in March, 1884, when he "caught cold." At that time he was in bed ten days, had cough with expectoration, but does not know what was the character of the matter expectorated; had pain in the right side, locating it in the mammary region; this was not severe, but it continued more or less at intervals to the time of consultation. The cough and expectoration also continued during the spring and summer, with, however, on the whole, a slow improvement until four days before first seen, when he thinks he caught cold, cough became more troublesome, and he spat up once only a little blood. He consulted me on August 23, 1884.

I found him a well-built man, five feet seven inches in height, dark hair and eyes, weighing when well one hundred and forty-seven pounds, but now evidently much reduced, one hundred and twenty-five to one hundred and thirty pounds. He stated that he had lost his weight since last winter. His appetite was poor; bowels torpid; urine normal in quantity but high in color; pulse 75, temperature 99.3°, respiration seventeen per minute; sleep fair; tongue coated. The cough and expectoration led him to fear phthisis, and the consultation was had with the expectation that there would be found evidences of that disease.

Upon inspection the chest was found to be noticeably flattened, but not more so upon one side than upon the other. Over the right side, and especially in the mammary region, vocal fremitus exaggerated. Upon percussion there was found dullness over the whole right side, the left side normal. Auscultation revealed bronchial expiration over the superior portion of right side, front and back; left side normal. Cardiac sounds normal. The diagnosis then entered in the case-book was a "pneumonia not completely resolved, with bronchitis." He was placed upon tonics, syrup hypophosphites with hydrobromic acid.

September 9th. Seventeen days later he came again, and in every respect seemed to be better. No physical examination was made, but he was ordered to continue the medicine.

September 16th. After quite a severe coughing fit, and the expulsion of a mass of what was found to be a cast of a large bronchus, he spat blood. The hemorrhage persisted, and he was ordered extract ergot in capsules, and to continue the syrup hypophosphites and acid hydrobromic. The diagnosis was corrected so as to read "chronic pseudo-membranous bronchitis."

September 23d. Bleeding continued two days after last visit, none since. Has had a great deal of pain in the inter-scapular region, not more on one side than the other. At times very tender to the touch at right of the eighth dorsal vertebra. This he describes as a "soreness." Has expectorated thin pieces of membrane since last consultation.

Physical examination. Find no dullness over the right side, or, as the record says, "no noticeable difference in the percussion noted on the two sides." This was one month after the first examination, when there was dullness over the whole of the right side. The breath sounds over the right side feeble; in every other respect normal. Pulse 68, temperature 98.6°.

October 2d. Had been doing well until yesterday, when he again coughed up a large cast of a bronchus. (I may remark that all of these which I saw were probably from the first and second size tubes, and were from two to four inches in length.) After this there came what he describes as pus streaked with blood, but the hemorrhage not copious. The ergot had been stopped. He thinks he was better while taking it, and asks to be permitted to return to it.

October 17th. Casts continue to be coughed up. Microscopically they consist of coagulated plasma with a few leucocytes. Since the last date, October 2d, he had been taking balsam copaiba and oleores, cubeb, with the ergot. I was under the impression that the copaiba had increased the plasticity of the exudate. Keeping in mind the specific history in his early life, I thought possibly that there might be some lingering impression still. I therefore put him on pot. iod. 0.50 *t. i. d.*

October 25th. Casts continue almost daily. Continue pot. iod. and add hydr. prot. iod. 0.01 *t. i. d.*

November 5th. His wife comes to the office, says that he has thrown off a large number of casts, and each is followed by copious hemorrhage. Has continued to take the ergot, and is now a little better, but weak; continues pot. iodid. and hydr. prot. iodid.; and in addition elix. calisayæ, 450., and acid. sulphur. arom. 50.00 grams; mix, and take a dessertspoonful in water three times daily.

November 21st. Patient comes himself. Has been better since last date; has had no hemorrhage, or but little; still a few casts; appetite has improved under the tonic; bowels regular and sleep good.

December 26th. Has been doing well until recently, but is now evidently losing in weight and strength. Hemorrhages from chest and occasionally from nose; appetite poor; bowels regular, or occasionally diarrhea — this, however, does not persist. Has lancinating pains in the abdomen, more in the epigastric region; coughs up very few casts, and these very thin and delicate. Has taken now the hydr. prot. iodid. since the 25th of October, 0.01 thrice daily, and a part of the time 0.50 pot. iodid. He has also taken, according to the amount of hemorrhage, ergot at his own discretion. Stop both ergot and hydr. prot. iodid., and take syr. fe. iodid. 1.00 *t. i. d.*

January 9, 1885. Has been feeling better for the last two weeks. Appetite fair; bowels regular; no more pain in bowels since change in medicine; cough less; expectoration mucus, occasionally tinged with blood; no free bleeding and no casts; has some pain in chest, bilateral, and not marked at any one place. Pulse 78, temperature 98°, respiration normal. During the last week in January his wife came; said that he was still coughing a little, and that the expectoration was streaked with blood. I directed an emulsion of oleum terebinth., each dose containing 0.50 of the oil, three times daily, and to omit the ferri iodid.

February 4th he was visited at his home. He has expectorated no casts since December 26, 1884, but continues to cough sputum streaked with blood, and occasionally very slight epistaxis. Is still taking the turpentine. Thinks the cough is looser than when taking the iron. During the past week has had a good deal of pain, intermittent in character, in the lower half of the right chest; has been in bed for last three days because of this pain.

Upon examination, find the motions of the lower right side restricted; on percussion, dullness over the lower third of right lung, line of dullness seems to change with change of position; breath sounds indistinct, voice sounds exaggerated. Friction sounds distinctly heard over anterior portion of chest when patient lying on back; less so when patient is sitting up. Diagnosed pleurisy, question of effusion doubtful; a hypodermic needle was introduced with negative results. Chest was ordered to be painted with iodine. The turpentine was continued.

Dr. Frank S. Johnson, to whom I am indebted for the larger portion of these notes, had made this visit, and on his return from the patient, in the extreme northwestern part of the city, became seriously ill. I was unable to look after the patient, and I asked my friend, Dr. S. D. Jacobson, to take charge of the case. This was, I think, on the 5th of February, 1885.

I beg to add extracts from a letter from Dr. Jacobson, giving in a general way the further treatment of the case:

"As to my ideas about the therapeutics of this case, I can be short. I am not troubled with an *êmbarras de richesse*, but rather find my excuse in the old saw, *simplex sigillum veri.*

"The case was to me one of great interest, having never seen a similar one in twenty-five years of practice, and finding little or no mention of such cases in the books at my disposal. True, I have had one case of bronchial croup, which terminated fatally in a couple of days (a man about forty-eight years old). But your case had already been under your care and observation for several months before I saw him.

"During the earlier months of my attendance he was about the same as when you saw him, intensely harassing cough with dyspnea until relieved by the expulsion of greater or smaller masses of bronchial casts, which relief was generally paid for by severe hemorrhages, which told on the little strength he possessed before, so that he not only dwindled down to a skeleton-like appearance, but when able to sit up his legs would not support him, and his hands grew so weak that he could not for some time lift the spoon to his mouth. During the summer of 1885 he improved some, but the fall and winter reduced him below his former level.

"Having no authorities to guide me in the treatment of such a rare case, I applied the general principles to the best of my abilities. I had two indications before me, (1) *indicatio symptomatica* and (2) *indicatio morbi*. As to the first class, I had in view the cough, dyspnea, hemorrhages, weakening of all the organs and functions. Those I tried to meet by the exhibition of *solventia, expectorantia, narcotica, styptica et roborantia*. As to the *indicatio morbi* I was more in the dark, knowing almost nothing about the pathology or etiology of this disease. But I reasoned like this: Since our pathology seems to drift more and more into bacteriology, it is but just that our therapeutics follow suit and be more in the nature of bactericides and antiseptics. In this light I wish you to judge my prescriptions containing such poisons as arsenic, iodine, bichloride hydrarg., and iodoform, which appear in many of them.

"I must confess that my success was a great deal more than I dared hope for, and though I firmly believe in the *vis medicatrix naturœ*, I also believe that a physician can be, and should be, in the words of Lord Bacon, '*medicus naturœ minister et interpres.*'"

During the summer of 1886, and again within the last few weeks, I have seen the patient, and find him perfectly recovered.

Dr. Johnson also read a paper on pneumatic differentiation and medication. The question of pneumatic differentiation has been quite largely discussed by members of the medical profession during the last two or three years, but there seems still to be a good deal of mystification on the subject. I was unable to be present when the matter was brought before this Society. I therefore beg permission to say a few words which I had intended to say at that time, and also to exhibit a contrivance for medication by spray or vapor in condensed air. It is not my purpose to discuss the merits of pneumatic differentiation. The subject, if not the term, has been before the profession for many years, and various devices have been employed in its accomplishment. The manufacturers of pneumatic cabinets insist that the desired results can be realized only by placing a patient in a box with a tube, by means of which he breathes the air of the room, while the pressure on the surface of the body is either diminished or increased by pumping air out of the box or into it. It is claimed that the result upon the body must be quite different from that reached by the use of the Waldenburg apparatus or other similar devices, for the reason that in some way the movement of a body under the pressure of a force, we will say, of fourteen pounds against a resistance of thirteen pounds, in which the available moving force is one pound, must be quite a different process from that which is reached when the moving force is fifteen pounds and the resisting force fourteen pounds. They do not, it is true, state it in this form, but they do assert that, in case, we will say, of the patient breathing through a tube the external air while the air in the chamber has been partly exhausted, so that its pressure is one pound per square inch less than the outside air, a *vis a fronte* is developed, by which the fluids and gases of the body are moved in a manner quite different from that which takes place when the patient, sitting in the room, breathes from a tank air compressed so that the pressure of the air breathed is one pound per square inch greater than that of the air in contact with the surface of the body. It must be evident that there is a fallacy in this claim.

We no longer use the phrase, *vis a fronte*, in the sense of an active force when we apply it to such phenomena as those which occur in the case of a vacuum filled by in-rushing matter. It is well known now that there is an active force from behind, a *vis a tergo*, which pushes into a partial vacuum sufficient matter to equalize the force, whatever it be, on the other side, or to produce an equilibrium of force. In the pneumatic cabinets there is therefore only another mechanical device for effecting the differentiation produced by the Waldenburg apparatus, and which has repeatedly been produced by breathing air from a tank into which it has been condensed by some means, such as air-pumps, water pressure, etc. I am not alone in holding this opinion. Dr. Isaac Hull Platt, in a paper read before the American Climatological Association at its third annual meeting, is led to conclude that the effects of breathing condensed air from the cabinet, the patient sitting in the room, are the same as those produced when the patient, placed in the cabinet and the air pressure reduced about the body, is allowed to breathe the air from the room. He says: "To put the matter beyond a doubt," that is, the claim of a special value in the inclosure of the patient in the cabinet, "I have reversed the breathing-tube of the cabinet, placing the patient on the outside and compressed the air within the cabinet. The effects produced upon the residual air and upon the pulse, as well as the subjective experience of the person operated upon, were found to be identical with those obtained when he was within the cabinet and the pressure reduced to the same degree."

I have made quite a number of experiments bearing upon the same question, with results in no sense differing from those reached by Dr. Platt. The proposition to conduct medicated sprays into the alveoli of the lungs by the differentiation of air pressure has been also ably treated by Dr. Platt, but I do not desire to consider it in this connection. I presume all admit that to the upper air-passages sprays may be applied with, in many cases, benefit. The use of sprays or vapors with condensed air is conveniently accomplished by the use of the cabinet, but this result can be and has been repeatedly reached, and just as easily, by other devices.

I have within the last twenty years resorted to several different contrivances for that purpose; an ordinary atomizing-tube may be inserted through an opening in the tube from the tank, so that medicinal substances are thrown in the form of spray into the stream of condensed air inhaled. There are quite a number of ways of accomplishing this: That which I have more recently used, and which I submit to the Society as a sample of what may be done, consists of a glass tube (I employ an ordinary percolator such as pharmacists use) to one end of which a breathing-tube is attached, and to the other end, through a cork, the atomizing-tube and also the tube from my tank of condensed air. I at one time used a double tank, or rather two tanks, with an air-gauge and stopcorks, so that I could maintain any required pressure in the tank from which my patient breathes. This tank may be a simple boiler, such as is used in kitchens for heating water for circulation through the house, say eighty gallons or more, or it may be in any other form desired. As the pressure is never great, not more usually than one half or at most three fourths of a pound to the square inch, it may be made of wood. A strong, tight cask or barrel even will answer the purpose. The ordinary form of pneumatic cabinet—the New York cabinet or the pine cabinet—may be used as a tank, but it is unnecessarily heavy and clumsy and expensive. As I have a pine cabinet in my office, I use it as a tank, with an eight-inch air-pump for compressing the air. A copper or sheet-iron tank, that can be obtained of any plumber at a small fraction of the expense of the cabinet, is quite as useful. Any physician who has a spray tube, and glass vessel with two openings, a Wolf bottle or even an ordinary wide-mouthed bottle, can provide himself with an apparatus just as useful as the pneumatic cabinet. By the use of a thin way stop-cock, expiration may be made into a tank of compressed or rarefied air, or against a valve supported by a spring of any desired pressure, or through a narrowed opening, so as to regain force to expel the air from the chest. All these methods have been used to accomplish the same result as expiration from the cabinet into outside air. The simpler the thing, provided it works, the better. The less mystery thrown around the whole subject, the better. I am quite confident that the physiological and therapeutical results obtained by the pneumatic cabinet are only such as may be reached equally well by the Waldenburg apparatus, or by the still more simple means used some years since by the late Dr. Frank H. Davis, of this city. The apparatus is within the reach of any one having a tank for condensed air for the purpose of atomizing or vaporizing medicinal substances, and requires no more skill or knowledge in its use than is required to administer narcotics, antipyretics, or anesthetics.

Dr. E. Fletcher Ingals asked Dr. Johnson if he thought the patient would get more of the medicated vapor into the lungs with the compressed air than with ordinary air.

Dr. Robert Babcock said: It has always been my opinion that pneumatic differentiation is essentially the same as the administration of compressed air, and I have not found reason to change this opinion. However, in justice to the inventor, I would like to ask Dr. Johnson what he thinks of Mr. Ketchum's assertion that the rarefaction of the air around the chest of the patient by lessening atmospheric pressure allows the chest, and therefore the residual air, to expand, and with this expansion of the residual air lessens the resistance to the tidal air. In other words, that if the residual air did not expand, the tidal air would meet with resistance from the residual air as from an air-cushion; also, that this expansion of the residual air tends to force out any little plugs of mucus which may have obstructed the bronchials; that in this respect pneumatic differentiation certainly accomplishes more than could be done by the inhalation of compressed air.

Dr. H. A. Johnson said: The claim of a special *value* in the cabinet as a means of differentiation is based upon a fallacy, viz., the assumption of the *vis a fronte.* If you take the pressure off from the outside of the chest, there is a kind of force that drives the fluids to the surface of the body. Suppose you reverse the case; place the patient outside, and let him breathe the rarefied air, is there a *vis a fronte?* It certainly seems to me that there is no such thing. It is a *vis a tergo* that pushes air into the lungs, and a *vis a tergo* that pushes the air out of the lungs, and the equilibrium is maintained. As to the effect of the rarefied air in the cabinet upon the residual air, it is about the same as going up and down in an elevator of one of our tall buildings. In answer to Dr. Ingals, it would seem to me that more spray may be carried into the bronchial tubes in the stream of condensed air than in air inhaled without differentiation of pressure. The discussion is simply upon the physiology and physics, not the value of pneumatic differentiation. Mr. Ketchum, or some one connected with him, invented that term, but the thing itself, taking the name away, is by no means new.

Dr. Ludwig Bandl, the gifted young professor of gynecology in the University of Vienna, died in that city during the first week of December, 1886.

Dr. Bandl was an able writer and teacher. He became widely known as the discoverer of the so-called Bandl's ring of the uterus.

Reviews and Bibliography.

Diseases of the Lungs and Pleura, including Consumption. By R. DOUGLAS POWELL, M.D., London, Fellow of the Royal College of Physicians, Physician to the Middlesex Hospital and to the Hospital for Consumption and Diseases of the Chest at Brompton, etc. Third edition, rewritten and enlarged, with illustrations, including two lithographic plates. Being Vol. XI of Wood's Library for 1886 (twelve volumes in set, price $15). New York: Wm. Wood & Co.

The work before us is an excellent presentation of the present state of knowledge in regard to the diseases of the lungs, and one among the best of the monographs on that subject. The author is evidently familiar with the facts and principles as now understood bearing upon his theme. But it would be only fair to say that the presentation is not vivid, and the reader is not borne along without counting the pages or subjecting his attention to his will.

In the various connections where the author has the question of etiology to deal with, he shows a decided aptitude for medical philosophy and a highly judicial character of mind. Especially lucid is the author's view of the production of emphysema. He has no reason from his own experience to believe that consumption is contagious, but is not willing to deny that it may possibly be so at times.

In the matter of treatment, while there is little that is new, a wise discretion is shown in commending or disparaging the various measures that have from time to time been put forward as advantageous.

Altogether the book is worthy of commendation as a full, sound, and safe exposition of the subject on which it treats.

Manual of Operative Surgery. By JOSEPH D. BRYANT, M. D., Professor of Anatomy and Clinical Surgery, Bellevue Hospital Medical College, etc. With about eight hundred illustrations. pp. xxvi—530. New York: D. Appleton & Co. 1887.

The object of the author in producing this work has been to present in book-form the methods he has been accustomed to employ in teaching. The aim is not to supply any thing original in the way of teaching, but by an increased number of apposite illustrations and succinct descriptions to enable the learner to advance more easily and rapidly than he otherwise might do. It is the character of book that every surgeon needs for ready reference, since it is not always that one has time to refer to more comprehensive works, or to atlases. It is especially useful for physicians in the country, who have not the amount of surgical practice required to keep them familiar with the entire field of operations.

A Text-book of Medicine for Students and Practitioners. By ADOLPH STRUEMPELL, formerly Professor and Director of the Medical Polyklinik at the University of Leipsic. Translated by permission from the second and third German editions, by HERMAN F. VICKERY, A. B., M. D., Assistant in Clinical Medicine, Harvard Medical School, etc., and PHILIP COMBS KNAPP, A. M., M. D., Physician to Out-patients with Diseases of the Nervous System, Boston City Hospital, etc. With Editorial Notes by FREDERICK C. SHATTUCK, A. M., M. D., Instructor in the Theory and Practice of Physic in the Harvard Medical School, etc. With one hundred and eleven illustrations. pp. xx—981. Price, $6.00. New York: D. Appleton & Co. 1887.

Although German investigation has contributed a larger share than that of any other people to medical science, comprehensive text-books on practical medicine have not been numerous from that source. It would seem as if the greatness of the classic work of Niemeyer had in some measure eclipsed and discouraged other laborers in the same field.

Lately two other authors have arisen to dispute the sway of that eminent authority, namely, Eichhorst and Strümpell; and if they lack somewhat of his power of portraiture they have the advantage of being able to present the state of medicine in its most recent advances.

Very properly leaving off the preliminary chapters on general pathological topics as being useless in view of the many special works published on subjects of this kind, the author proceeds at once to the study of particular diseases.

The treatise begins with a section on general diseases, under which head are included all the essential fevers, the exanthemata, malarial diseases, cholera, dysentery, yellow fever, etc. In all these there is nothing markedly new in treatment; the merit lies in a careful winnowing out of irrelevant matters and mistaken notions of treatment by a ripe judgment. The auther goes with the advanced school in regard to the relation of bacilli to disease, especially to diseases of the lungs. Of the treatment of consumption by compressed air, which is just now for a little while the fashion in this country, he says "pneumatic treatment by inhalations of compressed air may sometimes give good results in cases of incipient phthisis."

The article on the Diseases of the Circulatory Organs is very carefully written, and gives many interesting and valuable points, though necessarily brief in a work of this scope.

In speaking of idiopathic hypertrophy he says: "We not infrequently see idiopathic cardiac hypertrophy develop in the hard-working classes—the blacksmith, the locksmith, pack-carriers, and vine-dressers"—and that we can understand the development of this form of hypertrophy only by looking for factors in such cases, which, during life, result in increased work for the heart. However, the enlarged heart found in *bon vivants* still remains to him unaccountable, unless it be due to the free use of alcohol. If our author had reduced the etiology of hypertrophies to the more remote but more general factor of the demand of the tissues for extra exertion on the part of the heart whenever the blood falls below the normal in nutritive properties, in whatever way, even these might have been ranged as to etiology in the previous category.

In diseases of the digestive system the work is not so satisfactory; though this is not a matter of surprise, for the reason that the diversity of such cases is so great that in a general way, such as is alone possible in a work like this, justice can not be done to the subject.

Diseases of the nervous system are treated of in a clear and comprehensive style, not surpassed except in the best works specially devoted to the subject. The descriptions of the diseases of the spinal cord and its membranes are especially lucid, and the wider pathological relations of affections of the nerves are carefully pointed out. The means and methods of diagnosis are distinctly and clearly given, and such treatment as is available is systematically presented.

The description of diseases of the kidney is especially clear and in accordance with the most advanced views of pathologists and clinicians. He thinks the hypertrophy of the heart invariably found in this disease, except when the patient is too low in vitality to get up an hypertrophy, is due to atonic contraction of the arterioles dependent in some way upon the deranged function of the kidneys.

The translators have done their work excellently well. They seem to have realized that the reading public is growing tired of literal translations from the German, whose inflections enable it to carry safely such complexities as in English are simply intolerable. Like the translators of Zeissl, they have therefore given us a liberal rendering, which makes it read as if originally written in English.

The notes of Dr. Shattuck are well timed and furnish valuable emendations.

Taken altogether, in Strümpell we have an addition to the select and limited catalogue of classics, and one that no studious practitioner should fail to obtain.

The Short-hand Writer. A monthly magaizne devoted to the interests of tachygraphy and its writers.

Papers on Hypertrophy of the Prostrate Muscle. (Reprinted from the "Lancet," 1886.) By Reginald Harrison, F. R. C. S.

Rest for Painful Eyes: Is the Advice Always Good? By Julian J. Chisholm, M. D., Professor of Eye and Ear Diseases in the University of Maryland. Reprint.

Rhinology in the Past and of the Future: An Address delivered before the American Rhinological Association, October 5, 1886, at St. Louis, Mo. By Carl von Klein, M. D., of Dayton, Ohio. Reprint.

Clinical Manual for the Study of Medical Cases. Edited by James Finlayson, M. D., Physician and Lecturer on Clinical Medicine in the Glasgow Western Infirmary, etc. Second edition, revised and enlarged. One hundred and fifty eight illustrations. 12mo, pp. 683; cloth. Philadelphia: Lea Brothers & Co. 1886.

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States, for the fiscal year 1886. Washington: Government Printing Office.

The Principles and Practice of Operative Surgery. By Stephen Smith, A. M., M. D., Professor Clinical Surgery in the University of the City of New York, etc. New and thoroughly revised edition. Illustrated with woodcuts. 8vo, pp. xxxii and 877; leather. Philadelphia: Lea Brothers & Co. 1887.

The National Dispensatory, containing the national history, chemistry, pharmacy, actions and uses of medicine, including those recognized in the Pharmacopeias of the United States, Great Britain, and Germany, with numerous references to the French Codex. By Alfred Stillé, M. D., LL. D., and John M. Maisch, Phar. D. Fourth edition, revised and improved, with three hundred and eleven illustrations. Imperial 8vo, pp. xiv and 1781; leather. Philadelphia: Henry C. Lea's Son & Co. 1886.

Translations.

Treatment of Eczema.—Prof. Widerhofer (Vienna) has flannel washed in soap and water until it is filled with lather, and with this rubs off the parts affected by the eczematous eruption. A piece of linen is then smeared with a five-per-cent bismuth salve (lanoline 50, subnitrate of bismuth 2.5 parts), and with this the parts are dressed morning and evening.

Lanolin salve, according to Widerhofor, is an excellent treatment of eczema in children. It is more easily borne by the skin, because it forms fatty acids very slowly, while the other fats and vaseline form fatty acids very readily where they come in contact with the skin; and the skin of children is very sensitive to the irritation of fatty acids.—*Memorabilien.*

Displacements of Abdominal Viscera.—At the meeting of the Société des Hôpitaux (December 24, 1886), M. Féréol read a communication, sent by M. Glenhard, treating of displacements of various abdominal viscera, such as the stomach, colon, kidneys, etc. (gasteroptosis, enteroptosis, etc.); this displacement being considered by the author as the cause of various states known by the names of neurasthenia nervousness, cerebro-spinal cachexia, etc. Speaking of such pathogenic conditions, M. Glenhard advises, while in all cases undergoing a tonic and hydro-therapeutic treatment, that the patients should wear an appropriate abdominal belt, with suitable pads, adapted to support firmly the prolapsing viscera.

This measure produces an immediate feeling of comfort, and will prove the principal factor in the cure. M. Féréol, after having complimented the ingenuity and the talent of M. Glenhard, remarked that this falling of the viscera would not be the sole etiological factor in the diseases in question, since it had been often observed that women having an almost complete exenteration, and even a parieto-visceral prolapsus, as described by Gueniat, in 1885, and who yet never exhibited dyspeptic or nervous troubles.—*Le Progrès Médical.*

Hydrochloric Acid in Cancer of Stomach.—At the same meeting, M. Debove, basing his statement on a great number of personal observations, pointed out the disappearance of hydrochloric acid from the stomach during digestion as being an excellent and early sign of cancer of the stomach. He presented a patient who at the beginning of the year had experienced some digestive disturbances. In August, the gastric pains having increased, he entered the hospital. He had no appearance of cachexia. From that date only lactic acid was found in the stomach, and never hydrochloric acid. Now for a month an enlargement of the epigastric region has been observed, and it presented at this time a mass as large as an egg.

In this case the chemical sign preceded by a long time those purely clinical. In making the investigation, M. Debove drew from the stomach, by means of the sound, a quantity of its contents, and tested for hydrochloric acid with gentian violet or Poirirs orange, and he determined the presence of lactic acid by means of the perchloride of iron alone, or with the addition of carbolic acid.—*Ibid.*

A Simple Method of Extirpating Sebaceous Tumors.—Dr. C. Lauenstein, of Hamburg, describes as follows a simple method for removing sebaceous tumors:

"After the skin about the tumor has been cleaned and shaved, I make, for example, on the occiput, at the lowest point of the base of the tumor, where the skin and the capule are separated, a radial cut from one to one and a half centimeters in length, through the skin. Through this slit I insert the small handle of the knife employed, or some other similar instrument, between the skin and the sac, which is done with a facility proportioned to the size of the tumor. I then make a number of advancing right and left movements with the handle, and easily separate the skin and sac from one another in this way.

"The elasticity of the atheromatous tumor renders it easy, in a few seconds, to separate almost the entire circumference. The skin is next cut through with the scissors, from the slit upward, and the tumor completely turned out. It remains then to attend to stitching and drainage."—*Deutsche Med. Zeitung.*

Permanganate of Potash in Burns and Frost-bites.—Dr. A. Surow, of Russia, has employed with success the permanganate of potash in forty-four cases of burns and thirteen of frost-bites.

In frost-bites of the first and second degree, and burns of the first degree, he applies compresses wet with a solution of the permanganate, seven to fifteen grains to the ounce, and frequently changed.

In burns of the second degree this treatment is much less successful, and weaker solutions (three grains to the ounce) require to be used. *Ibid.*

The Treatment of Tape-worm in Small Children.—Dr. Friederich Betz, of Heilbronn, editor of *Memorabilien*, in commenting on a case of tape-worm, the report of which was taken from the American Practitioner and News, makes the following remarks:

"As it is very seldom that we have occasion to treat tape-worm in children, and as greater prudence is demanded in the selection of remedies for such cases than for adults, I take the present opportunity to report a procedure which I have resorted to in the case of a child three years of age. The remedy was taken after breakfast, and consisted of a mixture of olei ricini, ʒiij; ext. filei mar. aeth., gtt. xv; chloroform, gtt. vj. A teaspoonful to be given every hour. As the mixture, which the child took kindly, had all been taken by eleven o'clock without having produced an action on the bowels, I ordered it repeated in the same way. With the second dose several operations were produced, and a tape-worm was passed over twelve feet in length. The head could not be found. During the treatment the child sprang around in the room, an evidence that the worm was thoroughly expelled.

"The child ate raw flesh with unusual relish, never complained of belly-ache, and would eat nothing warm.

"Three weeks later I had the father under treatment for tape-worm, who, like his son, consumed also a great deal of raw flesh."—*Memorabilien.*

Contributions to the Study of the Innervation of the Stomach.—(Th. Dobbert, of Dorpat.) The following results were reached from certain investigations made with a view of throwing light on this question:

1. The pylorus always manifested certain automatic movements, which present a twofold type.

2. The automatism of the pylorus is to be reduced to certain known groups of ganglia.

3. The tone of the pylorus is exalted—that is, it contracts—through (*a*) local anemia, (*b*) local electrical stimulation, (*c*) electrical stimulation of vagus, (*d*) electrical stimulation downward from the first spinal vertebra.

4. The tone of the pylorus is diminished by (*a*) local asphyxia, (*b*) electrical stimulation of the upper part of the spine.

5. The tone of the pylorus is at first diminished and then increased by asphyxia.

6. The tone of the pylorus is rapidly increased and diminished by turns by electrical stimulation of the splanchnic.

7. The cardiac dilators had no dilating effect on the pylorus.

8. The antagonism of muscarine and atropine was manifest in their action on the pylorus.—*Deutsche Med. Zeitung.*

It is said fifteen per cent of the persons in any community are amenable to hypnotic influence.

Abstracts and Selections.

THALLIN IN TYPHOID FEVER.—The introduction of such drugs as "kairin," "antipyrin," and "antifebrin" has somewhat diverted attention from a very powerful antipyretic agent, viz., thallin. Professor Ehrlich lately presented to the Clinical Society of Berlin the results of some researches he has been making with this last-named agent, especially in the treatment of typhoid fever. (*Münch. Med Woch.*, No. 47.)

From experiment, he had discovered that after administering the drug to animals it was not retained in the nerve centers, but mostly in the fatty tissue of the body. He also found that there was a marked difference in toxic action, according as to whether it was administered by the mouth or subcutaneously, the greater inertness of its effect in the former case being attributable to the hindrance to absorption from the presence of intestinal contents. The lesions induced by a toxic dose comprised fatty degeneration of the kidneys, necrosis of the salivary glands and pancreas, and hemorrhagic infarcts in the renal pyramids. The chief action of thallin is antipyretic, but it is capable also of moderating inflammation. As regards typhoid fever, it was administered by Ehrlich in two different ways. The first plan consisted in commencing with doses of 0.06 gram every hour, and reducing the dose to the minimum required to give any effect. The other plan was to commence with a minimum dose, and increase it until an effect was produced, and then to continue the prescription at the dose thus attained. The action of thallin is especially noticeable in its effect on the sensorium and general condition of the patient, who presents the appearance of convalescence, while the splenic swelling and roseola are still present; and if the drug be discontinued the temperature will rise again. It is not therefore surprising to learn that, whereas, of twenty-eight cases treated by bathing, the average stay in hospital was thirty-seven days, of seven cases treated by thallin (minimum doses) the duration of treatment was forty-seven days, and cases on a scale of progressive doses thirty-eight days. However, Professor Ehrlich claims advantages for the drug in the absolute control it exerts over the pyrexia, and the sense of well-being enjoyed by the patient. There were no intestinal hemorrhages in these cases, and no instance of perforation. The kidneys were not affected, but sequelæ in the form of hyperemia and edematous swellings seemed due to the use of the drug. It was not thought that thallin had any specific action against the typhoid bacillus, but it did seem to limit the degree of intestinal ulceration. Professor Ehrlich considers it to be on a level with the bath treatment. Dr. Fränkel pointed out that if the statement were correct that thallin is not found in the nerve centers, its action in reducing temperature was rather inexplicable. He has exhibited it in increasing doses, but could not say that the patients experienced any special benefit attributable to the diminished fever. Dr. Guttman had not been favorably impressed by its use, and had noted the production of rigors.—*London Lancet.*

HYSTEROGENIC ZONES ON MUCOUS SURFACES. Attacks of a spasmodic or of a lethargic nature in hysterical patients can often, as is well known, be excited by touching or pressing upon certain spots or zones on the suface of the body. These external "hysterogenic" zones were examined and described by M. Gaube, and later by M. Blanc-Fontenille. Quite recently, too, M. Lichtwitz, who had been asked by M. Pitres to examine a hysterical patient laryngoscopically, observed that a severe convulsive attack was produced by touching the epiglottis; and subsequently, by examining the mucous membranes of half a dozen hysterical patients, he has been able to show that hysterogenic zones exist there as well as on the external surface. In all the six cases the nasal fossæ were the seat of spasmogenic zones, which were bilateral except in one instance, in which touching the nasal mucous membrane on one side produced a hypnotic attack. In four cases either spasmogenic or lethargogenic zones were found in the laryngeal mucous membrane, the posterior wall of the pharynx presenting one instance of each kind. The mucous membrane of the gums, the conjunctivæ, and the external auditory meati also furnished "zones." In some of the cases the sensitiveness was obliterated by cocaine, so that necessary thereapeutic applications could be made; in other cases the use of cocaine did not succeed. In one case, in which the leg was in a plaster bandage, where a violent attack might have proved serious, a convulsion, which was accidentally induced by touching the mucous membrane, was arrested immediately by a friend whom the patient had brought with her, who was acquainted with her external spasmo-inhibitory zones.—*Ibid.*

ACTION OF DRUGS IN ALBUMINURIA.—An interesting communication upon this subject was read in the Section of Therapeutics at the Brighton meeting of the British Medical Association by Dr. Robert Saundby. He pointed out the difficulty of foretelling what action drugs might possess on the renal processes in genuine albuminuria. The number of drugs with which he experimented was very large. The following are his chief conclusions: Alkalies used in the form of diluents—such as a quart of bitartrate of potash, imperial (one ounce and a half to a pint), daily, gave distinctly favorable results in cases of chronic persistent and copious albuminuria. He has employed also citrate of lithia, bicarbonate of potash, ammonic benzoate, and bicarbonate of soda, and includes them in the favorable opinion. The beneficial effect was not due to the formation of alkali-albumen: for Esbach's fluid, which was the method employed, precipitates that form of albumen. Tannate of soda, or rather an ounce mixture of tannic acid and bicarbonate of soda, of each ten grains, with fifteen minims of glycerine, also gave good results. In one case the albuminuria was diminished nearly one half. Nitro-glycerine and fuchsin appeared to have no good effect. Digitalis and other heart tonics—caffeine, strophanthus, sulphate of sparteine, iron, salts, acetate, sulphate, and perchloride—increase the amount of albumen passed. Apocynum was not found to have any diuretic action in dram doses of the tincture, and it increased the albumen in two cases. Turpentine had no beneficial effect, though hematuria followed its employment in one-minim doses. Doses of the one thousandth of a grain of bichloride of mercury were also inoperative.—*Ibid.*

The Origin of Typhoid.—Dr. Henry Lawrence writes to the London Lancet, December 26, 1886: In your issue of December 8, 1883, you published a paper of mine on "The Genesis of Typhoid Fever from Cattle Manure in the Cape Colony," in which, after adducing cases in proof of the cattle origin of typhoid, I stated that I hoped similar evidence would ere long be brought forward by others. In an annotation, in your issue of November 20th, you refer to the very suggestive report of Dr. J. F. Allen, of Pietermaritzburg, on the cause of typhoid in that city. In his report Dr. Allen, apparently as an independent observer, also attributes cases of typhoid to the presence of cattle manure used in Natal as fuel, and so far supports the observations I had made. But Dr. Allen has advanced the question a step further. He infers that the excretions of some calves affected with a specific enteritis, the lesions of which on *post-mortem* examination corresponded with those of typhoid fever in the human subject, were the infecting material. The question is an important one, and it is to be hoped will be elucidated by further observation.

As far as my own observations went, after some thirty years spent in South Africa among a widely scattered population, I was led to the conclusion that typhoid would be a very rare disease in the colony were it not introduced to the human subject anew from horned cattle, by means of their excretions affecting the air, water, and milk.

Much has been accomplished in this country for preventing the spread of typhoid from one human subject to another by disinfecting the excretions of patients suffering from the disease, and by improved sanitary arrangements; but unless the bovine origin of the disease, if true, be proved and sufficiently recognized, the danger resulting will not be met and opposed as it might be.

Subnitrate of Bismuth as a Dressing.—(1) Subnitrate of bismuth possesses antiseptic properties at least equal to those of iodoform. (2) No poisonous effects are to be apprehended, as in the employment of iodoform. (3) The subnitrate of bismuth, being a chemically indifferent substance, does not irritate the wounds; secretion is diminished. (4) Its action is very prolonged, although not vigorous, so that the dressings do not need to be frequently changed, and rest is insured for the wounds. (5) There is no action at a distance, nor does any specific effect attach to it. (6) It does not afford protection against erysipelas and other wound diseases, at least no more than iodoform. (7) It is no disinfectant, but as an antiseptic it keeps the wounds pure. (8) All wounds capable of healing by first intention can do so when dressed with bismuth. (9) It also represents an excellent material for forming scabs under which epidermis can grow over the wound. Its use on granulating wounds has not, however, been sufficiently studied as yet.—*Annals of Surgery.*

The Pulse in Hypertrophy, Pregnancy, and during Menstruation.—The St. Louis Medical and Surgical Journal states, and gives its authority for stating, that the rate of the pulse is invariable in all positions of the body in hypertrophy and during pregnancy and menstruation. This last will be interesting to most readers, although it has been known for some time that position affects the rate of the pulse but little in the two former cases. It is a matter which may be easily proved by any one, and no doubt we shall soon have theories enough to account for the fact, if it proves to be a fact. *Canada Lancet.*

The Medical Record states that over one half of the criminals of the State of New York are foreign born.

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. III. SATURDAY, FEBRUARY 5, 1887. No. 3.

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H. A. COTTELL, M. D., - - - Editors
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A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

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ANTIPYRETICS AND FEVERS.

Many marvelous advances have of recent years been made in physiological chemistry, and, looking over what has been done, we are forced to admire the ingenuity and perseverance of the host of patient laborers in this field. Still there remain many questions without solution, and which from the very first must have pressed themselves upon the inquiring mind as most deserving of study. Some of these, intimately related to consciousness and life, may never reach solution; but there are others, scarcely less interesting, which touch upon known principles at so many points that their survey ought not to prove a hopeless task.

One of the chief of the latter class is the production and regulation of animal heat. In the investigation of this subject we may begin with the generally accepted postulate that the heat in the bodies of animals is the result of chemical changes. Furthermore, these chemical changes may be traced, first and last, to oxidation. Hydration may prove an immediate source of heat within the body (for instance, when glycogen is changed into glucose), as it does out of the body in such examples as the hydration or slaking of lime, or the hydration of sulphuric acid. But the instability that rendered the glycogen capable of descending to the form of glucose had to be produced by some outward force, just as the instability that rendered the lime capable of slaking had to be produced by the oxidizing of coal or wood.

Let us concede, however, that a small part of our food is ingested in such a state that its hydration in the system is a source of force, and the amount will certainly not be so great that it may not be set aside in the accounting without vitiating the result. It is not meant to deny by this that substances may not be prepared by syntheses in one part of the system, to be broken up and made available for heat-production in another part, but to claim that these very syntheses were effected by the force derived from the previous oxidation of other substances.

Then comes the question, How is this oxidation and dehydration brought about? Where is the furnace placed in which this combustion continually goes on? Who throws the combustible, the fuel, into the flame? Is there a fireman to supply the furnace as heat is needed, who selects the fuel, divides it, breaks it up, and casts it into the furnace; or do the chips of coal and sticks of wood lean over and drop into the flame of their own accord as they are needed? It is easy to see that a fireman is needed to feed every furnace, or the fuel must have intelligence. If the coal is ready, and constantly and inertly tending to roll into the furnace, a fireman is still needed, if for nothing more than to hold it back and let it enter only as needed.

In the animal engine there is such a fireman, selecting and preparing the material to be cast into the furnaces of oxidation. In this suggestion we are met with the reply, "We have heat centers in the brain, and nerves proceed from those centers to regulate the heat." And this is a very good answer for those who are satisfied without any. It is certainly not meant to say that the nerves create heat independently of oxidation, that in these brain centers there is a store of pure, underived heat, to be dispensed whenever it is called for.

Admit that force in some form is gathered by the brain from the blood as it passes through it, and stored up like electricity in an accumulator, to be discharged as heat at whatever point needed, or that the so-called heat centers merely send out permits to particular points for oxidation to go on more rapidly, and the difficulty is not in the least removed. What we wish to know is, where does the combustion take place that first furnishes the heat? Why does one cell break up and oxidize, and its neighbor not? Seeing, then, that it is probable, nay, necessary, that there should be some active agent between the regulating heat cells of the brain and the fuel whose oxidation is ultimately to supply the heat, that between the engineer who runs the train, and the fuel beyond his reach that supplies the force, there must be a fireman, let us ascertain, if we may, who that fireman can be.

Nature is not a great hand for throwing tools away. When she gets one that does good work, and wants further work done for which that tool is not well adapted, she does not throw it away and make a new one out and out. She simply alters the old one and makes it do further work. Out of the leaf she made first the sepal, then the petal, the stamens and pistil, and even the fruit, as each in turn was required. If then, in the lowest form of animal life, we find a certain element carrying on nutritional changes, we may with perfect fairness conclude that that element, or certain modifications or descendants of it, is the agent which to-day is performing the same office in the highest organisms. This element can be but one thing. It is the seemingly simple yet marvelously complex substance that composes the ameba. Its descendant to-day can hardly be mistaken. It is the bioplasm of the white blood cell; not identical with it, true enough, but much more closely related, as far as we may judge, than the apple to the leaf out of which it was developed. The office of the bioplasm of the ameba is to disintegrate all external digestible substances and assimilate them to its own nature as far as may be compatible with its well-being. The physiological division of labor has deprived the white blood cell of a part of these offices, but doubtless it still performs nearly the whole task of breaking up and digesting those cells of the system which have become useless to it, except for fuel. In this way such substances are finely divided and cast into the furnace of oxidation, which supplies heat for the system. The nerves might aid in several different ways. They might withdraw their protective influence from tissues, permitting them to oxidize more rapidly; they might discharge a store of accumulated heat, or they might impart force to the white cells as they move, causing them to be more aggressive. It is not by any means certain that the blood does not experience innervation as it flows through the vessels. The ceaseless acts of touching and letting go which the white cells are observed to perform as they move through the vessels must have a meaning. They are giving up something, they are receiving something.

This brings us then to the question of the action of antipyretics, and furnishes occasion to reiterate statements hitherto published, that the antipyretics are simply protoplasmic poisons and reduce fever simply by impairing the activity of the white blood cells and other kindred modifications of protoplasm. Some of them have other effects, which may be due to other properties. The antipyretic effect of quinine may depend upon a property absolutely distinct and different from that which gives it control over malaria. Salicylic acid may have no influence over rheumatism other than to impair the activity of protoplasm and produce a species of analgesia, leaving the patient free from pain until time cures him or the disease kills him. And this, indeed, is about the outcome of impartial investigation. Whether it will hereafter be found that in the long run antipyretics exercise a favorable influence on the course of disease remains to be determined, not merely by the loose opinion of any man whatever, but by a sufficient array of statistics carefully and *honestly* prepared.

Dr. Davidson, who was once an expert on insanity in Illinois, was recently sent to the insane asylum from Black Hills. His disease, however, was of traumatic origin, and in no way was it due to a weakened or overworked brain.

CARRION, THE MEDICAL MARTYR OF PERU.

On the 5th of October, 1886, the medical society known as the "Union Fernandini of Lima" celebrated the anniversary of the death of Dr. Daniel A. Carrion, who, it will be remembered, inoculated himself with the virus of a disease known as verruga, endemic in Peru, in order to prove the relations of identity or otherwise of that disease and what is known as arroyo (gulch) fever, from which inoculation his death resulted on October 5, 1885.

The Peruvian physicians seem never to tire in doing honor to his memory; and certainly, even to a stranger, there is not a little that is touching in the history of this fatal experiment of the brilliant young physician. After having the blood of a patient suffering from verruga injected into his arms in four places, he proceeded to watch the progress of the disease for twenty-six days, recording all his symptoms and feelings. He then became too weak to continue the record, when his friends took up the task. Even after this he objected to his friends watching with him at night, showing the most stubborn will till reason was lost in delirium. He died on the thirty-eighth day.

Arroyo or gulch fever, the name under which verruga is known when found in the gulches or cañons of the Andes, is a very fatal disease, and Dr. Carrion well understood the risk he was running in exposing himself to inoculation.

There are many physicians who knowingly risk their lives in the practice of their profession, especially in times of epidemics, but there are few indeed who are willing deliberately to put their lives in the balance merely to determine a question of medical science.

Dr. S. Weir Mitchell, of Philadelphia, is a scientist and a writer of fiction of commanding eminence, but he deserves also to rank as a poet of no humble pretensions. His "Commemorative Verses," read upon the occasion of the Centennial Anniversary of the College of Physicians, have the ring of the genuine metal. *Maryland Medical Journal.*

Notes and Queries.

The Medical Aspect of the Colin Campbell Case.—Sheared of its disgusting and prurient details, the Colin Campbell case brings up some very interesting pathological and medico-legal points, particularly with reference to the relation of old chronic gonorrhea to endometritis and salpingitis. The Medical Press and Circular gives the following account of the matter:

Before marriage the husband had been suffering from perineal abscess, the sequel of gonorrhea contracted some few years previously, for which abscess he had undergone one or two surgical operations—namely, perineal section into the urethra. Marriage took place before the parts were restored to health, but it was previously agreed that separate beds should be occupied for two months or so, in order to permit a recovery. The contention of the wife was that, although he had been operated upon and was not as yet recovered at the time of marriage, yet she had no idea he was suffering from any disorder of the genitals, but had thought it was something of the nature of piles. Communications had been made to her by medical men, but she asserted that this was thus understood by her. However, after some time, permission was given to commence intercourse; but as the husband was again laid up, it had to be discontinued, and further operations became necessary. Intercourse was occasionally resumed, but ultimately the wife's health was affected, and it was found she was suffering from irritation of the vagina and vulva, with uterine leucorrhea. Local applications were made to the vagina and cervix uteri, but without much benefit. Dr. Braxton Hicks was called in after an attack of very severe pain on one side of the pelvis, who found there a cellulitic effusion; after a few weeks this subsided, but still the uterine catarrh remained, with much irritation of the vagina. As the canal had been well medicated without benefit, the os was dilated. It was evident that the uterine cavity was larger than normal. A silver tube was passed, through which the interior of the uterus was painted over by a brush charged with iodized phenol. This cured the complaint. However, upon overtures being made by the husband for renewal of cohabitation, she begged him to refrain in future, he being still uncured, and to occupy a separate bed. He said if this was to be the case he would leave her; but she rejoined that, if so, she must make clear the reason. Hence this action for separation. And the question asked the court was whether, under these circumstances, it was obligatory on a wife to permit cohabitation; and, if not, then an order in her favor was requested. Evidence having been taken on the above-mentioned facts, the question put by the court to many witnesses was, whether the endometritis and other symptoms from which the wife suffered were likely to result from coitus where purulent secretion found its way into the urethra. It was then stated by several medical men that, although there were many causes which produce like symptoms, it was a result quite to be expected under the circumstances. The result of the evidence on his part was to confirm the cause and circumstances of his illness and severe operations, as above described, and the jury (special), after a brief consultation, found that the husband had been "guilty of cruelty," which was the legal form of the plaint, and the court decreed a judicial separation. An appeal was granted. The husband argued the case in person, but the upper court confirmed the decree of the court below. No similar case had been in the Divorce Court before, and in any way the decision in its principle was important. It would be difficult to say when the specific contagium of gonorrhea ceased to infect specifically. In this case a purulent secretion would find its way from the fistula along with the semen, and this would most likely produce irritation of the membrane lining the genital tract, with not impossibly salpingitis, cellulitis, etc.—*Medical Record.*

Huxley's Views of Spiritualism.—Unless and until any body will resolve all these doubts and difficulties for me, I think I have a right to hold aloof from materialism. As to spiritualism, it lands me in even greater difficulties when I want to get change for its notes-of-hand in the solid coin of reality. For the assumed substantial entity, spirit, which is supposed to underlie the phenomena of consciousness, as matter underlies those of physical nature, leaves not even a geometrical ghost when these phenomena are abstracted. And, even if we suppose the existence of such an entity apart from qualities—that is to say a bare existence—for mind, how does any body know that it differs from that other entity, apart from qualities, which is the supposed substratum of matter? Spiritualism is, after all, little better than materialism turned upside down. And if I try to think of the "spirit" which a man, by this hypothesis, carries about under his hat, as something devoid of relation to space, and as something indivisible even in thought, while it is, at the same time, supposed to be in that place and to be possessed of half a dozen different faculties, I confess I get quite lost.

As I have said elsewhere, if I were forced to choose between materialism and idealism, I should elect for the latter; and I certainly would have nothing to do with the effete mythology of spiritualism. But I am not aware that I am under any compulsion to choose either the one or the other. I have always entertained a strong suspicion that the sage who maintained that man is the measure of the universe was sadly in the wrong, and age and experience have not weakened that conviction. In following these lines of speculation I am reminded of the quarter-deck walks of my youth. In taking that form of exercise, you may perambulate through all points of the compass with perfect safety, so long as you keep within certain limits; forget those limits, in your ardor, and mere smothering and spluttering, if not worse, await you. I stick by the deck, and throw a life-buoy now and then to the struggling folk who have gone overboard; and all I get for my humanity is the abuse of all when they leave off abusing one another.—*From "Science and Morals: A Reply," by Prof. Huxley, in Popular Science Monthly for February.*

Lead Poisoning through Home-made Wines.—The fact that an article is "home-made" is usually a sufficient guaranty of its purity and wholesomeness, whatever other qualities it may lack; but an exception to this general rule has just been discovered by Dr.

D. Campbell, the medical officer of health to the Calne Local Board. It appears that, for many years past, Dr. Campbell has had occasion, about the months of August, September, and October, to attend many severe cases of acute and subacute lead poisoning, the source of which he could not ascertain. The drinking-water, the beer, the tea, the coffee, and bread, as well as the various cooking utensils, all fell under suspicion and analysis, but with only negative results.

A few weeks ago, however, seven severe cases —two almost fatal—occurred simultaneously in Calne and the neighborhood, and careful inquiries by Dr. Campbell elicited at last from one of the patients the fact "that her husband had drunk some home-made rhubarb wine, which she herself had made, and which she was sure could not contain any poison of any sort, as she was very careful in selecting and cleaning her rhubarb; and, as for the sugar and barm, they were all right; besides, the vessel was a beautifully clean, glazed, earthenware pan, in which she steeped it for a fortnight or three weeks to ferment." Here Dr. Campbell at once saw the solution of the problem that had so long been puzzling him. The glaze on these earthenware vessels contains as much as sixty per cent of white or red lead, and during the process of fermentation, the acids of the rhubarb, or of any other fruits used, with the acetic acid generated, act on the glaze, dissolve the lead, and form acetate, or sugar of lead, which is a powerful irritant poison when taken even in small doses for any length of time. Analysis of ten samples of various home-made wines collected by Dr. Campbell showed the presence of lead in large quantity in eight; one (parsnip), which was made in a galvanized iron tub, contained iron; and one, which had been made in an ordinary boiler, was free from lead and iron. One sample, which was five years old, and two samples, which were two years old, contained lead. Various chemical tests, applied to the earthenware vessels that had been used, showed whence the lead had been obtained. As high as the liquor had reached in the vessel, the glaze was more or less dissolved off. On acetic acid and iodide of potassium being applied, a clear yellow spot of iodide of lead was produced; and, on ammonium-sulphide being applied to the denuded part of the pan, a distinct black line was immediately formed, clearly showing the presence of lead in the glaze. It is not an uncommon custom in country districts for persons who have large gardens and much fruit to make considerable quantities of these wines, from rhubarb, parsnips, red and black currants, sloes, damsons, elder-berries, etc., for use by the men in harvest-time. It is therefore very important that they should have the timely warning of the danger that lurks in those "beautifully glazed earthenware pans." Doubtless, wooden vessels would be quite as convenient for these domestic brewings, while they would be free from the risk of lead poisoning.—*Medical News.*

THE INVENTOR OF SACCHARINE.—A representative of the American Analyst called upon Dr. Constantine Fahlberg, the inventor or discoverer of saccharine, the new coal-tar sugar, and had a long talk with him about his new discovery.

"How did I discover saccharine?" he said. "Well, it was partly by accident and partly by study. I had worked a long time upon the compound radicals and substitution products of coal tar, and had made a number of scientific discoveries that are, so far as I know, of no commercial value. One evening I was so interested in my laboratory that I forgot about supper until quite late, and then rushed off for a meal without stopping to wash my hands. I sat down, broke a piece of bread, and put it to my lips. It tasted unspeakably sweet. I did not ask why it was so, probably because I thought it was some cake or sweetmeat. I rinsed my mouth with water and dried my mustache with my napkin, when, to my surprise, the napkin tasted sweeter than the bread. Then I was puzzled. I again raised my goblet, and, as fortune would have it, applied my mouth where my fingers had touched it before. The water seemed syrup. It flashed upon me that I was the cause of the singular universal sweetness, and I accordingly tasted the end of my thumb, and found that it surpassed any confectionery I had ever eaten. I saw the whole thing at a glance. I had discovered or made some coal-tar substance which out-sugared sugar. I dropped my dinner and ran back to the laboratory. There, in my excitement, I tested the contents of every beaker and evaporating dish on the table. Luckily for me, none contained any corrosive or poisonous liquid.

"One of them contained an impure solution of saccharine. Upon this I worked, then, for weeks and months, until I had determined its chemical composition, its characteristics and reactions, and the best modes of making it scientifically and commercially.

"When I first published my researches, some people laughed as if it were a scientific joke; others, of a more skeptical turn, doubted the discovery and the discoverer, and still others proclaimed the work as being of no practical value.

"When the public first saw saccharine, however, every thing changed. The entire press, European and American, described me and my sugar in a way that may have been edifying, but was simply amusing to me. And then came letters. My mail has run as high as sixty a day. People wanting samples of saccharine, my autograph, or my opinions upon chemical problems, desiring to become my partner, to buy my discovery, to be my agent, to enter my laboratory, and the like."

A DEFINITION OF HABIT.—When we look at living creatures from an outward point of view, one of the first things that strike us is that they are bundles of habits. In wild animals, the usual round of daily behavior seems a necessity implanted at birth; in animals domesticated, and especially in man, it seems, to a great extent, to be the result of education. The habits to which there is an innate tendency are called instincts; some of those due to education would by most persons be called acts of reason. It thus appears that habit covers a very large part of life, and that one engaged in studying the objective manifestations of mind is bound at the very outset to define clearly just what its limits are.

The moment one tries to define what habit is, one is led to the fundamental properties of matter. The laws of Nature are nothing but the immutable habits which the different elementary sorts of matter follow in their actions and reactions upon each other. In the organic world, however, the habits are more variable than this. Even instincts vary from one individual to another of a kind; and are modified in the same individual, as we shall later see, to suit the exigencies of the case. The habits of an elementary particle of matter can not change (on the principles of the atomistic philosophy), because the particle is itself an unchangeable thing; but those of a compound mass of matter can change, because they are in the last instance due to the structure of the compound, and either outward forces or inward tensions can, from one hour to another, turn that structure into something different from what it was. That is, they can do so if the body be plastic enough to maintain its integrity, and be not disrupted when its structure yields. The change of structure here spoken of need not involve the outward shape; it may be invisible and molecular, as when a bar of iron becomes magnetic or crystalline through the action of certain outward causes, or india-rubber becomes friable, or plaster "sets." All these changes are rather slow; the material in question opposes a certain resistance to the modifying cause, which it takes time to overcome, but the gradual yielding whereof often saves the material from being disintegrated altogether. When the structure has yielded, the same inertia becomes a condition of its comparative permanence in its new form, and of the new habits the body then manifests. *Plasticity*, then, in the wide sense of the word, means the possession of a structure weak enough to yield to an influence, but strong enough not to yield all at once. Each relatively stable phase of equilibrium in such a structure is marked by what we may call a new set of habits.—*Prof. William James, in Popular Science Monthly for February.*

FULGURITES, OR LIGHTNING HOLES.—The peculiar and often disastrous results attendant upon an electric discharge have been dwelt upon since time immemorial. To even briefly refer to the numerous recorded instances of the destruction of life and property by the discharge of "heaven's artillery" would far exceed the limits of this paper. It is my purpose, therefore, to call attention only to those peculiarly interesting, though usually quite harmless, effects produced by the lightning striking in loose sand; though, before closing I shall allude to the closely allied phenomena resulting from similar discharges upon solid rock. In the sand, as is well known, the usual result produced is that of fusion, whereby a frail, glassy tube of variable diameter and length is produced, the interior of which is a true amorphous glass, quite smooth, while exteriorly it is roughly granular and greatly corrugated. Such are called *fulgurites* or *fulmination-tubes* in English, while to the German and French they are known as *Blitzröhren* and *tubes fulminaires* respectively.

So far as can be learned from available literature, the earliest description to be made of these peculiar objects was that of Pastor David Hermann in 1711. According to Gilbert, this gentleman, as early as 1706 and 1707, dug from a sand hill in Massel, Silesia, fulgurites some twenty feet in length, which he very fully described in his work on Massel and its curiosities.

Hermann's account is curious and full of interest, as his statements concerning the origin of the tubes were the purest guess-work, and his views regarding them wild in the extreme. He designated them by the name "Osteocolla," and proposed to use them for medicinal purposes, as will be noted later.—*George P. Merrill; Ibid.*

A Valuable Literary Discovery.—In the course of some literary explorings connected with the life of Charles Brockden Brown, the novelist, which he is preparing, Mr. E. I. Stevenson has discovered the complete MS. journal of Dr. Elihu H. Smith, of New York, born September 4, 1771, one of the most brilliant of our post-Revolutionary men of letters, who died September 21, 1798, during the yellow-fever epidemic at the close of the last century. These journals are said to constitute a history of the literary life of the day, and are full of references and statements concerning the notable men of that date. Mr. Stevenson hopes to ultimately edit this discovery.

This Dr. Smith, in connection with Drs. Samuel L. Mitchell and Edward Miller, projected the Medical Repository, copies of which are now exceedingly rare, although the New York State Medical Association has been fortunate enough to secure a complete series for its library. He also was a playwright ballad writer, and editor of the first collection ever made of American poetry. During the horrors of the yellow fever he was unremitting in the discharge of the duties of his profession. He escaped the infection for a long time, but finally fell a victim, under circumstances creditable to his humanity as well as intrepidity. A young Italian, Joseph B. Scandella, who, during his brief sojourn in the city, was removed from the Tontine Coffee House, ill with the fever, by Smith to his own apartments, where physician and patient both died.—*Gaillard Medical Journal.*

Surgeon-General Gunnell, in his report to the Secretary of the Navy, invites attention to the condition of the Medical Corps of the Navy. Its vacancies have not been filled for several years; resignations, deaths and retirements have depleted it more rapidly than candidates have been obtained. The bureau has not been willing to lower the standard of requirements; and it is impossible, with the present inducements offered, to find young medical men possessing the necessary qualifications who are disposed to become medical officers of the navy. The Army Medical Department has qualified applicants far in excess of its needs, attracted by better pay, well-defined rank, and more satisfactory professional position. Since 1870 more than thirty young medical officers have resigned (three of them to enter the army corps). He says he can not too strongly recommend that prompt measures be taken to increase the advantages and improve the condition of this department.—*Medical News.*

The Experimentum Crucis.—It is told of the late M. Paul Bert, as an instance of his scientific enthusiasm and fearlessness, that at one time, when he was impressed with the prevalence of smallpox, from which those vaccinated in youth and not revaccinated had suffered largely, he decided to test for himself the value of revaccination; and he did so in a manner which might possibly have cost him his life had his doubts been justified. He was vaccinated, and afterward had himself inoculated at Havre with virus from a man who was dying of smallpox. He escaped the disease.—*British Medical Journal.*

FEMALES AND WOMEN.—Dr. Williamson protests, in the British Medical Journal, against the common employment of the word female when woman is meant, and calls the editor to task for publishing a paper on "Some Functional Disorders of Females." He regards that subject as one covering altogether too much ground to be discussed in a short paper, and thinks it would have been better if the writer had called his paper one on disorders of women. Seeing the title, he says he read the article, expecting to find it a study in comparative physiology.—*Medical Record.*

AN ENTERPRISING QUACK.—A story is going the round of the papers to the effect that a quack in St. Louis guarantees to cure almost any disease for a good round sum, which must always be paid in advance. Of course he often fails, and then the patient wants his money back. The "doctor" employs a lawyer for just such emergencies, and pays him $5,000 a year salary. The lawyer is so skillful in pacifying angry patients and compromising with implacable ones that the "doctor" is able to make about $8,000 a year above all expenses.—*Medical Record.*

DEATH-RATE OF MEMPHIS.—The best evidence of an improved sanitary condition of a place which has had a high annual death-rate and been the subject of epidemic diseases, is freedom from epidemics and a comparatively low death-rate. The average death-rate for the last three years, 1883–'85, has been 24.40 per 1,000—a gain of about ten per cent.—*Sanitarian.*

A NEW PARASITE IN BEEF.—Wolf has found in the intermuscular connective tissue of the flesh of oxen a parasite which is apparently the larval form of an ascaris. It is encysted like trichinæ, but is somewhat larger, and is nearly spherical in shape.

DOUBTS IN REGARD TO THE PREVENTIVE TREATMENT OF RABIES.—Dr. Colin, of Paris, read a paper before the Paris Academy of Sciences, December 2d, showing that the annual average number of deaths from rabies in France is 26, and that since M. Pasteur began his course of treatment the same number of patients have died. According to official statistics the number of persons bitten by mad animals last year in France was 351, while M. Pasteur has treated 1,700 patients. Dr Colin concludes that the Pasteur system is of doubtful efficacy, and he is alarmed for the results of virulent inoculation as now practiced.

A MEDICAL SCHOOL IN FORMOSA.—Dr. Wykeham Myers, of Takau, in the Island of Formosa, has begun a work which promises to be of extended usefulness. It is the establishment of a school for the education of natives in medicine and surgery. The curriculum is a full one, and the standard of efficiency, as shown by the questions set and answered, is evidently high.—*Medical Record.*

THE DEATH-RATE IN ST. PETERSBURG is said to exceed the birth-rate by nearly one hundred a month. The city is growing, nevertheless, by reason of the constant flow toward it of the country population. The excess of deaths over births is owing partly to the presence in the city of large numbers of soldiers whose wives and families have been left at home.—*Ibid.*

CONTRA-INDICATION TO THE USE OF PARALDEHYDE.—Sommer concludes that paraldehyde ought not to be given to patients presenting atheromatous defects, and should not be employed in connection with alcoholic liquids. Eickholdt holds that the presence of vaso-paralytic symptoms precludes the employment of paraldehyde.—*Ibid.*

M. DOYEN (Brit. Med. Jour.) recommends the following in inflamed eczema and ulcerated impetigo: Salicylic acid, 2 grams; lanolin, 50 grams; zinc oxide, 24 grams; starch, 24 grams.

THE Third Scourge of Humanity is what Erlenmeyer calls cocaine, alcohol and morphine being the other two.—*Ibid.*

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. III.
[NEW SERIES.]
LOUISVILLE, KY., FEBRUARY 19, 1887.
NO. 4.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

SEQUELS OF PARTURITION, WITH ILLUSTRATIVE CASES.*

BY J. G. CARPENTER, M. D.

I desire to report five cases of parturition and the sequels accompanying them.

CASE 1. Mrs. J. H., aged twenty-seven years, primipara, has a good family history, and robust constitution; weight one hundred and forty pounds, trunk masculine, figure short; began labor July 27, 1883, with vertex presentation, position R. O. I. P. The patient was very nervous and apprehensive of trouble. To control this condition it became necessary to give chloral, bromide of potassium, and hypodermics of morphia in large doses every two or three hours. These drugs were supplemented with chloroform inhalations. The labor pains were frequent and violent, and had the patient been an old multipara, rupture of the womb might have been expected.

After twelve hours' labor the head became impacted; the pains were still violent and almost continuous, a condition of things which strongly indicated the use of the forceps. I urged the immediate application of them, but a brother physician in attendance disagreed with me, and, counseling delay, maintained that he could deliver the woman in the sitting posture on her husband's lap. I strongly opposed this method, and again insisted on applying the forceps. The friends of the woman agreed with my consultant to first try the sitting posture, and that if this failed instrumental delivery should be attempted. The sitting posture was accordingly tried, but the uterine action was so violent that the recto-vaginal septum was lacerated to the extent of about two inches in its longitudinal diameter; the perineum and lower fourth of the rectum still remained uninjured.

The shock was great, and it seemed for a time as if the patient would die under the strain. Vomiting was frequent, the genital tract was hot and dry, and had to be frequently lubricated. The sitting posture was abandoned and resort to the forceps immediately decided on.

The recto-vaginal laceration was clearly made out by palpation before the forceps were introduced, that this lesion might not be chargeable to the instrumental delivery. The forceps were accordingly applied, and a live male child delivered in due time without difficulty or further laceration.

The utero-vaginal canal and lower bowel were thoroughly washed out with a hot antiseptic solution of listerine in water, the patient cleansed, and placed in bed in a dark and well-ventilated room; nourishment, stimulants, and a hypodermic of morphine were given.

The hot listerine injections were administered every two or four hours, night and day, for a week, then every six hours for another week, then every eight hours for a week; by this time the laceration had healed. The urine was drawn by catheter three times during each twenty-four hours, until the rent healed, so as to prevent its irritating effect on the wound.

CASE 2. (August, 1883.) Mrs. M. primipara, age fifteen years, of good health and family history, was in labor about sixteen hours. Nothing abnormal had occurred until at the completion of the second stage, when laceration of the perineum and a few fibers of the sphincter ani resulted. The third stage of labor was soon completed, the womb contracted well, and the patient appeared to be in no immediate danger.

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* Read before the Central Kentucky Medical Association at Danville, Ky., January 19, 1887.

In an hour after labor, while I was preparing to sew the rent of the perineum, Mrs. M. became suddenly pale and flighty, then sleepy and almost pulseless. The fundus of the womb was examined and found above the umbilicus, flaccid and in a state of secondary inertia. The right hand grasped the fundus over the abdomen, the left was introduced into the womb, the clots turned out, and lumps of ice inserted; hemorrhage was soon checked by uterine contractions. The uterus and vagina were then irrigated with hot water.

Cold applied locally produces, first, contraction of the tissues and causes the vaso-motor nerves to contract the caliber of the arterioles; second, the vaso-motor nerves become paralyzed, and dilatation and hyperemia result, thus favoring hemorrhage.

Heat at the temperature of the blood, or above it, first causes dilatation and hyperemia of the arterioles, second, contraction and anemia of the arterioles, and thus proves to be a valuable hemostatic.

The womb now being emptied and cleansed, fl. ext. of ergot, ʒj, tinct. nux vomica, gtts. xv, were given every four or six hours for forty-eight hours, to continue the tonic uterine contractions and prevent secondary uterine inertia and *post-partum* hemorrhage.

After all hemorrhage had ceased and reaction became established, the edges of the perineal tear were brought together by means of silver wire; three stitches were necessary. Hot antiseptic injections were used every four or six hours for a week, and the urine drawn three times daily for this period; in six days the rent had healed and the stitches were removed. Patient made a good recovery.

Case 3. Mrs. T. R., a multipara, age about thirty-eight years, has good family history, a strong constitution, short waist and wide hip; weight about one hundred and forty pounds, the pelvis being wide and roomy. She has given birth to five living children, and has always had a rapid delivery, labor seldom lasting more than two hours.

Mrs. R. was taken in labor at 12 M. July 12, 1886, and was delivered by 2 P. M. As the second stage of labor was being completed a distinct snap or tearing sound was heard. After the third stage of labor was ended a thorough digital examination was made for rents, though none were detected. Mrs. R. used the hygienic and antiseptic measures faithfully that were enjoined until the end of the third week. The lochia rubra still existed and a digital examination revealed nothing beyond the normal processes incidental to labor. A specular examination, however, brought to light the following: There was subinvolution; the longitudinal diameter of womb was six and a half inches, when it should have been about four inches, and the uterine wall a half inch thick; an intra-cervical laceration extended from the internal os to within one fourth of an inch of the external os. In this rent all the uterine tissues were involved, except the extra-cervical mucous membrane. The endometrium seemed to be in an abnormal state. It and the rent were cleansed and an application of carbolic acid and glycerine, equal parts, made.

These applications were made every five to seven days. In about six weeks the subinvolution and rent were cured. One gallon of hot water was used to irrigate the womb and vagina night and morning during the intervals of specular treatment. Tonics were given internally for the anemia and general debility.

Case 4. Mrs. C., age twenty-four years, of a good family history and constitution, has had two normal labors. May 5, 1885, she had a premature labor at eighth month of gestation, with cervical laceration as a result. May 8th, patient had a hard chill, followed by high fever and undoubted symptoms of puerperal peritonitis. 9th: condition of patient very critical. Case is considered hopeless. I was called in consultation and found a typical case of puerperal peritonitis. Pulse 130–140; temperature, 103.5°; respiration 40, and thoracic. On consultation, Dr. Bronough and myself agreed to administer a hot-water and antiseptic uterine and vaginal injection, half to one gallon to be given every two or four hours, with the patient in the recumbent posture; to apply cloths wrung out of boiling water, covered with oiled silk, to the abdomen every fifteen minutes; to administer ten-grain doses of quinine every four hours until cinchonism should be produced, and a hypodermic injection of morphia sulph., grains ss–i, and sulphate of atropia, grain $\frac{1}{60}$, every three hours *pro re nata.* The hot foot- and steam-bath was also to be given for an hour at a time (its heat increased by adding a pint of hot water every five minutes), and at intervals of six or eight hours. The feet and limbs were wrapped in blankets, without wiping them, to retain the heat. By this measure it was expected that a determination of blood would be produced in the periphery of the body, attended with copious diaphoresis and relief of internal inflammation and congestion.

This treatment was continued for four days (except that the quinine at the end of thirty-six hours was given in five-grain doses instead of ten). In an hour after the administration of the hot-water utero-vaginal injection the pulse diminished from 140 to 120; the temperature from 103.5° to 102° F.; respiration from 40 to 30 per minute.

On the 10th the pulse was 110, temperature 101°, respiration 30; 11th, pulse 110, temperature 100.5°, respiration 24; 12th and 13th, pulse 90, temperature 99.5°, respiration 24.

Morphia hypodermically, grain ss–i, and the hot-water and antiseptic injections, one gallon, from the 14th, were given three times a day for a week. The bladder had to be catheterized every six or eight hours.

On the 21st acute articular rheumatism appeared. This was treated by one or two dram doses of liquor tongæ with salicylates, taken every two hours for forty-eight hours.

23d. The rheumatism has subsided and cystitis supervened. The bladder was washed out night and morning with listerine ℥ ss, warm water Oj, for a week.

May 30th. Cystitis cured and urine passed by voluntary effort.

June 3d. Remittent fever has manifested itself. Temperature 105° F., pulse 120, respiration 24 per minute. In ten days the fever had disappeared, and the case made fair progress toward recovery for two weeks.

June 20th. Double sciatica appeared. The right sciatic nerve was treated with hypodermic injections of sulphuric ether, gtt. xx, night and morning. The neuralgia was cured in forty-eight hours. That of the left was treated with morphia, grain ss–i, atropia, grain $\frac{1}{60}$, and succumbed in four days.

Mrs. C. was given the most nutritious liquid food. Champagne and sour catawba wine played a most important *rôle* in checking vomiting and nausea, aiding digestion, and sustaining the vital powers.

July 1st. As there existed, in addition to the lacerated cervix, cervical hyperplasia and endometritis, the following treatment locally was applied: The endometrium, cervix, and laceration were cleansed by means of absorbent cotton wrapped around a probe and dusted with borax; the latter inspissates the mucus and muco-pus, causes it to be detached, and affords the best method for cleansing the uterine lining. A solution of nitrate of silver, grains xl to water ℥ i, was applied every five to seven days for two months, alternated with a mixture of tincture of iodine ʒ i, glycerine ℥ i.

From the 1st of September to the 1st of November the local applications were made every fourteen days. In four months from the first specular examination the uterine lesions were all healed.

Mrs. J. H. H., aged thirty-two years, of average health, a multipara, and the mother of seven children, had a normal labor of eight hours' duration, though all former labors had been accompanied by some complication. Lactation was fully established by the third day, and the symptoms led us to hope for an uncomplicated puerperal period.

At twelve o'clock A. M. third day after labor Mrs. H. had a hard chill attended with an increase of the pulse to 140, temperature 104°, respiration 40, and the pathognomonic symptoms of puerperal peritonitis. Pain was intense and especially marked on pressure in the hypogastric, umbilical, and iliac regions and in Douglas' cul-de-sac. Retention of urine, nausea and vomiting were present, and continued for several days.

The treatment of this case was half-grain doses of morphine with one sixtieth of a grain of atropine every half hour for two hours, followed by two-grain doses of powdered opium every four hours, to control pain and arrest inflammation. Quinine was taken in ten-grain doses every six hours until cinchonism was developed. Hot antiseptic utero-vaginal injections were administered every four hours for forty-eight hours; if given less frequently, the pulse, temperature, and respiration would increase. The temperature was reduced one degree, the pulse ten beats, and respirations ten per minute in one hour after the first injection. For the next seventy-two hours the injections were given every five hours, and during the remainder of the illness every eight hours. Half to one gallon of water was used each time. The hot foot- and steam-bath was also given every eight hours for the first five days of sickness, and then dispensed with. The hot-water rubber coil was applied to the abdomen, the latter covered with two layers of flannel, and the rubber coil placed over it extending from the ziphoid cartilage to the symphysis pubis. The temperature of the water which circulated through the tube ranged from 100° to 105° or 110° F. The proximal end of the coil was attached to a bucket suspended several feet above the bed. By elevating or lowering the bucket the volume of the stream could be increased or diminished, and by using the compress upon the coil the current could be suspended without the appliance being removed. The distal end of coil was attached to a tube under the bed.

The successful termination of these cases convinces the writer that many cases of puerperal peritonitis may be cured by prompt and decided measures of treatment; and that if the injuries sustained by the woman during labor were given prompt therapeutic and hygienic treatment by the obstetrician, there would be much less work for the gynecologist afterward.

It is during the first three months after parturition that the greatest good is done hygienically and therapeutically in the case of endometritis, cervical hyperplasia, cervical lacerations, and recto-vaginal contractions. Lacerated perineums should be operated upon an hour or two after labor, while the lips are raw and insensible to pain, the operation being easy and the aid of a nurse only being necessary.

STANFORD, KY.

THE SUBCUTANEOUS INJECTION OF CALOMEL IN THE TREATMENT OF SYPHILIS.*

BY I. N. BLOOM, A. B., M. D.

Dr. Kopp, of Munich, and Dr. Chotzen, of the Breslauer Polyclinic, have recently published† a very valuable article on the subcutaneous injection of calomel in the treatment of syphilis. The article is based upon their experience of its use and of its effects on two hundred and sixty-three patients, upon whom they made fifteen hundred and twenty-three injections. The treatment is not really a new one, but, except in Italy, had been almost entirely abandoned. Scarenzio, in 1864,‡ first called attention to its use. He claimed that calomel injected into the body was not irritating; that it was *slowly* converted into corrosive sublimate by the chlorides of the blood and lymph; that this conversion went on so slowly that the danger of salivation was reduced to a minimum, and that finally by its conversion and absorption as the bichloride of mercury it possessed curative properties in every way equal and in many respects superior to the other methods of mercurial exhibition. The experience of other Italian observers, as Ambrosli, Ricordi, Monteforte, and others, confirmed this. Next Smirnoff's work on this subject, the best known of all, and his success in the subcutaneous use of calomel directed attention to it in France, and Jullien, in the *Annales de Dermatologie*, recommends it in the highest terms and urges the profession to its further use. In Germany Rinecker, Koelliker, and Sigmund (1876) expressed satisfaction with the results which they obtained from it. Neisser, after an experience upon one hundred and twenty-two patients, reported favorably upon it.

After detailing the various suspensions of the calomel in glycerine, gum arabic, and gum arabic and salt, the authors give the following as the most approved *modus operandi:*

1. The hypodermic syringe must be thoroughly disinfected.

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*Abstract and critique read before the Clinical Society of Louisville, February 1, 1887. (For discussion, see page 110.)

†*Vierteljahreschrift fuer Syphilis und Dermatologie*, December, 1886.

‡*Annali Universali di Medizina.*

2. For reasons to be given hereafter, the injections should be made a half inch behind the great trochanters of the femur. They should be given two at a time, one on each side.

3. The injected fluid should be deposited in the subcutaneous tissue, between the panniculus adiposus and the fascia.

4. After various trials, all things considered, the following was found to be the best formula:

Calomel vapore parati[*]	5.00
Sod. chlorid	1.25
Aq. dest	50.00

Of this, one gram (fifteen minims) was injected at a time *on each side*, as previously indicated, and repeated again in one, two, or more weeks. It will be seen that the amount of calomel contained in each injection is about ten centigrams, or about one and a half grains. The total amount to be injected in any given case seldom exceeds forty centigrams, that is, six grains; only in the severest cases is more necessary. Dr. Landsberg, in an article on "The Elimination of Mercury from the System, with Special Reference to Calomel," says mercury appears in the urine from sixteen to twenty-four hours after twenty centigrams (three grains) have been injected. It increases in amount daily if no further injections are given until between the third to the fifth day, when it reaches its maximum, at which point it remains with little variation for several weeks. It then *gradually* and *slowly* becomes less and less until its presence can no longer be detected. If injections are given later, but during the period of maximal elimination, the amount eliminated is not increased, but the maximal period of elimination is prolonged. Thus we see that by means of injections of calomel the body may be kept for months after the injection under the influence of mercury, and the possible objection, that once injected its effects can not be controlled should salivation occur, is set aside when we consider the fact that only a certain quantity is eliminated at a time; that the permanency of the *time* of elimination of this quantity is affected by a fresh injection and not the quantity eliminated, that is, absorbed.

The objections to the method are next given, and will be answered, as brought forward, by the statistics of the experience of the authors.

The principal objection has been the formation of abscesses. They gave 429 injections, each injection containing twenty-five milligrams (three eighths of a grain) of calomel. There resulted 11 abscesses, or 1 in 39. There were 326 injections given, each containing 6 centigrams (about one grain) of calomel, from which 13 abscesses resulted, or 1 in 25; and finally they gave 768 injections, each containing ten centigrams (one and a half grains) of calomel—the amount which their experience led them to prefer, and 48 abscesses were recorded, that is, 1 in 16—a total of 1,523 injections, with 72 abscesses, or 1 in 25; about 4 per cent.

Women were more subject to abscesses than men. Although the patients numbered 15 women to 10 men, 11 men only had abscesses (12 abscesses) while 43 women had the other 60. The abscesses themselves were scarcely deserving of the name. They were unaccompanied by fever or even true suppuration, and healed readily. When opened their contents were found to contain minute traces of mercury, showing that absorption went on in spite of their formation. Another objection raised is the pain that it is claimed the injections cause. Of the 263 patients experimented on, 32 complained of considerable pain, which was especially called forth by pressure on the site of the injection.

The region given as the most favorable for the injection, namely, one half inch behind the great trochanter, was selected because there is little or no pressure exerted at this point in sitting, and because it is easiest in that location to deposit the injection in the subcutaneous connective tissue.

The large quantity of adipose tissue here present in females and the consequent difficulty of injection into the connective tissues are given as plausible reasons for the relatively greater frequency (4 to 1) of abscesses in women than in men.

In the whole number (1,523) of injections only one case of true salivation occurred, and in this case inattention to hygiene, cleanliness, and an irregular, dissipated life outside the hospital easily accounted for it. There were fifteen light cases of stomatitis, but these were easily controlled by proper attention. With no other effective mercurial treatment will fewer of such cases be observed. In some cases iodide of potassium was given along with the calomel injections.

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[*] Calomel prepared by the vapor method was preferred, because thus prepared the particles of calomel are obtained in the finest state of subdivision. It is, therefore, more easily converted into the bichloride and is less liable, as a foreign body, to cause irritation (abscess). The authors lay great stress on this point. In this city, calomel thus prepared can be obtained from Rosenham, Flexner, Reinz & Henry, and Diehl, and some others.

In eleven cases, eight of which were carefully observed, the injections were given after the appearance of the chancre, and before any secondary syphilis occurred. In all of these the secondary effects appeared in due time and unmodified, an important corroborative testimony to the uselessness of early mercurial treatment as an abortive measure.

Only thirty-eight exacerbations of the disease occurred among the two hundred and sixty-three patients—an unusually small number—and of these the majority consisted of mucous patches. The period of observation extended over two years and a half.

There was not a single return of tertiary syphilis in those who were treated in that stage. In every form of syphilis the complete therapeutic effect was obtained. Every form of syphilis yielded to it. Especially satisfactory, even astonishing, was the speedy and complete success of its use in cases of specific iritis, which so often accompanies the papular syphilide.

The authors know no other method of mercurial exhibition to compare with this in safety and celerity of action.

The advantages of calomel injections, given with care and following the proportions above mentioned, may be summed up thus:

1. Four to six injections, each containing ten centigrams, suffice in the severest cases.
2. The therapeutic effect surpassses all others in certainty and celerity.
3. By the slow and graduated elimination of the mercury the body is kept under its influence for a long time.
4. It is more convenient, more reliable, and cheaper than the best of all the other treatments.

These are the results of the experience of two faithful observers, not founded on theoretical and laboratory work, but demonstrated practically in the wards and polyclinic on 11 cases treated before secondary effects appeared—213 cases of secondary and 39 cases of tertiary syphilis. The conclusions are such as should stimulate the profession to further experiment in order to confirm or condemn their deductions.

Since the publication of the article referred to, Watraszewski, in the *Gazeta Lakarska* (*Wien Med. Woch.*, Dec. 25, 1886), gives the following additional objections to the deep calomel injections, at the same time acknowledging its advantages:

1. Pain at the site of the injection, and infiltrations, which cause neuralgic pain by pressure on the sciatic nerve.
2. Severe general disturbance.

He acknowledges, however, the great advantages of the method and its general efficacy.

The writer of this abstract would take it kindly should any reader of it be stimulated to further trials of the calomel as indicated, and send the results of such experience to him.

The following table, copied bodily from the publication of Kopp and Chotzen, is a *résumé* in brief of their work:

CALOMEL IN EACH INJECTION.	Number of Patients....	Number of Injections..	Number of Abscesses...	Number of Exacerbations	Stomatitis...	Severe pain after Injection ....
0.025=⅜ grain........	12 M 28 W } 40	429	3 M 6 W } 11 =2.5 per ct.	2 M 1 W } 3	1 Man	4 Women
0.06=1 grain...........	18 M 48 W } 66	326	1 M 11 W } 13 =3.9 per ct.	1 M 10 W } 5	5 Women	1 M 12 W
0.10=1½ grains........	72 M 85 W } 157	768	7 M 26 W } 48 =6.2 per ct.	7 M 17 W } 10	2 M 8 W } 10	6 M 9 W } 15
Total	102 M 161 W } 263	1,523	72=4 per ct.	10 M 28 W } 38	3 M 13 W } 16	7 M 25 W } 32

LOUISVILLE.

COMPOUND DISLOCATIONS OF THE ANKLE-JOINT.*

BY WM. L. RODMAN, M. D.
Demonstrator of Surgical Dressings, University of Louisville.

Having within the past year treated two severe cases of compound dislocations of the ankle-joint, and having in each case been gratified by an unexpectedly good result, and finding further that there exists a great contrariety of opinion among surgical writers as to the proper treatment of these injuries, I have been led to hope that a report of my cases, with a few supplementary remarks, might not be without interest.

CASE 1. A ship-carpenter, of intemperate habits, about fifty years of age, fell from a scaffold, on May 11, 1886, sustaining an external compound dislocation of the right ankle. The distance fallen was slight, only about four feet, but the end of a joist twenty feet long, eighteen inches wide, and two and a half inches thick, struck him upon the inner side of the ankle, producing compound external dislocation. The fibula protruded fully two and a half inches through the external wound, there being also a fracture of the tibia above the malleolus. The soft parts, aside from those injured by the protruding fibula, were not badly lacerated or contused. This I am told by Dr. C. W. Parsons, who was called to the case soon after the injury. The Doctor, after a thorough examination, decided to make an attempt to save the limb. He dressed it upon a lateral splint with a foot-piece at a right angle.

As it was to be expected from the nature of the injury, considerable constitutional resentment soon followed. Two weeks after the injury another surgeon was called in consultation, and the consultant's opinion was that amputation should be done at once. In this opinion Dr. Parsons did not concur. The patient was averse to amputation, and asked that it be postponed for a time at least.

On June 5th, twenty-five days after the injury, Dr. Yandell was asked by Dr. Parsons to see the case. He, being sick and unable to answer the call, requested me to do so for him. Dr. Parsons explained the nature and history of his case to Dr. Yandell and myself. Dr. Y. expressed the opinion that the foot could be saved, which confirmed the opinion expressed by Dr. Parsons. I asked Dr. Yandell for his views as to what operative measures should be done. He gave them to me, and I carried them out a few hours afterward.

I found the patient with a temperature of 102° F., pulse 130 and very weak, hectic flush, and tongue covered with a whitish fur. The appearance of the wound was not favorable. The fibula was still protruding about two inches, and was necrotic at its lower end. The finger introduced into the joint discovered a considerable amount of necrosed bone, consisting of the internal malleolus and articular surface of the tibia and the upper surface of the astragalus. On the tibial side of the leg above the ankle was a considerable amount of pus. The foot having been kept elevated, as is usual in these cases, pus burrowed up the leg midway to the knee. The patient being anesthetized, this matter was first evacuated by a free incision. The abscess contained a considerable amount of dirty, unhealthy-looking pus. The joint was then entered from the fibular side through the original wound. Passing my finger freely about the interior, I discovered more necrosis than I expected. The internal malleolus, articular surface of tibia, and the upper or articulating surface of astragalus were necrotic, and accordingly removed. The lower two inches of the fibula were also removed.

We were all surprised at the amount of necrosed bone taken from the joint. It was suppurating so very freely, and pus had burrowed so, both above and below the ankle, that I thought it best to put a drainage-tube through the joint. The drainage-tube was kept in this position for some weeks, and at each time of dressing the wound a quantity of antiseptic fluid run through it. The wound being freely bathed in a solution of hydrarg. bichlor., one to two thousand, it was dressed antiseptically, and the dressings secured by a firm bandage. The lateral splint with foot-piece was continued.

The dressings were not disturbed for five days, and then only to be replaced by fresh ones of the same character, after passing a quantity of antiseptic fluid through the joint.

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* Read before the Louisville Medical Society, January 20, 1887. (Discussion, page 109.)

The constitutional condition was far from favorable. The patient had been a steady drinker for many years, but had not taken any stimulants since he was injured, a month before. We ordered an egg-nog (every three hours), and gave him tonic doses of quinine and tincture of iron. In less than forty-eight hours a decided change was noticed. Instead of complete anorexia, which had been present for many days, he was ready for his egg-nog and milk whenever offered him. The temperature fell to about 99° in the morning and 100° in the evening, and here remained for some time.

Without going further into details, I will say that the case did uninterruptedly well, and was discharged August 11th, sixty-six days after I saw him.

Only one or two very small spicula of bone were discharged during the time, showing that it had all been removed the first day I saw him. The wounds on the fibular and tibial side were entirely healed, and the patient was able to walk without a cane, and had a fair amount of motion in the joint. I have not seen him for three months, but learn that he is able to walk without a cane, and to carry on his work as a carpenter to a certain extent. Motion was secured by faithful attention upon the part of his attendant, Dr. Parsons, who saw him every day, and moved the leg at each visit after the partial subsidence of acute symptoms. Indeed, I feel sure that no such result could have been secured as was had in this case without the closest attention. Dr. Parsons saw the case every day for three months, and I would see it with him about every five days. At my visits we would change dressings and observe the progress of the case. The wound did uninterruptedly well, and at each time of changing dressings we would see that ground had been gained. Being satisfied with this, we never changed the treatment.

Case 2. Martha, a colored girl, aged seventeen, jumped from a passenger train on the Short Line Railroad while going at the rate of thirty miles an hour. This occurred July 5, 1886, late in the afternoon. She was brought into Louisville, and being then acting surgeon for the road I was telephoned to meet the train at 7:30 P. M. Patient was carried in an ambulance from the Water Street depot to her home on Hancock Street near Walnut.

Dr. Ed. Pearce being with me as assistant, I requested him to administer chloroform so that a thorough examination might be made. Both tibia and fibula were fractured in both limbs at the same place—the ankle-joint. On the right side the fracture was not compound. The left ankle-joint was completely torn open. The tibia protruded two or more inches, its lower portion being broken off. The fibula was fractured above the external malleolus. The joint was filled with sand, cinders, and dust. Of course there had been but little hemorrhage. The shock when I first saw her was not great. The wound in the soft parts was very large. The foot could be moved in any direction, so great was the destruction of soft and bony tissues. The outer edge of the foot could be made to touch the side of the leg with ease. The injury to the ankle-joint in this case was much greater than in Case No. 1, as will be naturally understood when the nature of the violence is considered. Here the soft tissues were all badly contused and lacerated above and around the joint. The condition of structures was such that I am sure I would have amputated at once had I not had the experience with Case No. 1. In Case No. 2 the violence was greater, the large bone was protruding instead of the small one, as in Case No. 1, and the soft tissues were altogether in a more damaged state. The presence of so much foreign matter in the joint was, as a matter of necessity, unfavorable. While this was all true, we had a far better subject to deal with than in Case No. 1, so we concluded that things were nearly if not entirely equalized on this account.

I determined to see what the same plan of treatment carried out with such satisfactory results, in Case No. 1, would do for us here, feeling assured that I could amputate in a week or two if the progress of the case was not satisfactory to me after a fair trial of conservatism.

I removed the lower two and a half inches of the tibia, the lower fragment of fibula, which was broken into a number of pieces, and all foreign matter from the interior of the joint and surrounding parts. The joint was douched and injected with carbolized water until it was perfectly smooth and free from any foreign matter, as cinders, pieces of bone, etc. The wound was sewed up, though we had but little idea of its healing for some weeks, as we were reasonably sure that so much foreign matter getting into a joint would excite suppuration. Such was the case, and the sutures did no good.

The wound was dressed under antiseptic precautions exactly as in Case No. 1, iodoform antiseptic gauze, borated cotton, etc., being used. Dressings were not changed for four days. The right leg was put in a plaster-of-paris dressing. It will be remembered that we had a fracture of both bones at the ankle-joint in this leg also. No splint was used on the leg with the compound dislocation, but it was kept in good position by a tight bandage.

June 6th. But little reactionary fever. Complained of more pain in right than left leg. A saline was given to open the bowels. As good food as she could get was advised, and she was especially directed to live principally on meat, eggs, and milk. I insisted that two pints of milk be taken every twenty-four hours. Beginning in this way, the constitutional condition was good as could be expected throughout. Dr. Ed. Pearce was kind enough to assist me throughout the treatment of this case, and saw it for me every day for three months. I saw it about once a week, or more frequently if he desired it. There was a superficial gangrene of the tissues above and in front of the ankle, resulting from the injury to the soft parts.

At the end of three or four weeks I detected pus burrowing on the fibular side of the leg. Having gone to the case without any instruments, I made a free incision into the abscess with my pocket knife. A large amount of pus was evacuated, the cavity of the abscess injected, and a drainage-tube inserted. It will be observed that the same thing happened in both of my cases—an abscess forming on the side opposite to the dislocation. I think that I erred in not making an opening upon the fibular side of the joint at the time of the injury and putting a drainage-tube completely through it. Had I done this (as I did in Case No 1 after the abscess had formed) no pus would have collected. The patient did well on the whole, and is now, six months after the injury, able to go about on crutches. The external wounds have healed, and there is still good motion of the joint. The result so far is not so good as in Case No. 1, yet any one will admit that she will have a useful foot. I say not so good, meaning that Case No. 1 has the best foot now. All things considered it is a better result.

A few quotations from standard authors will show any thing but a uniform practice in the treatment of these injuries.

Gross says: "The statistics of compound dislocation of the ankle-joint, attended with extensive laceration of the soft parts, clearly show that as a rule immediate amputation is the only course to pursue. If the operation be postponed until the joint and the surrounding parts are invaded by violent inflammation, death will almost be inevitable; the patient, if he survive the dangers of erysipelas, pyemia, and tetanus, being gradually worn out by profuse suppuration, hectic fever, and constitutional irritation. Secondary amputation is seldom of any avail in saving life. Of fifty-seven cases of this kind, collected in 1877 by Dr. Frank O. Farral, of Indiana, nearly every one perished. In ten other cases, eight of which came under his personal knowledge, in which amputation was performed at periods ranging from ten days to six weeks, only two recovered."

Ashhurst (Principles and Practice) says. "Compound dislocation of the ankle is a very serious accident, and usually requires amputation, particularly when complicated with fracture, though in suitable cases an attempt may be made to save the limb by sawing off the projecting ends of the tibia and fibula. I have once succeeded in effecting a cure without operation by the continuous employment of irrigation."

Agnew (Vol. II, page 120) says: "At one time amputation was deemed the only proper measure in a case of this nature. A larger experience, however, has shown that in most cases of this injury a more conservative course may be adopted, with a reasonable prospect of saving the limb. The conditions which will render amputation necessary after a compound luxation of the joint are, a very extensive laceration of the soft parts, a bad state of the constitution and rupture of the principal blood-vessels. The latter lesion, under any circumstances, will be a sufficient reason for the operation."

Sir William Ferguson, in his work on Surgery, follows the practice of Sir Astley Cooper in the treatment of these injuries, maintaining, as did Cooper, that in a majority of instances amputation is improper. He quotes from an article by Mr. Syme, in the Edinburgh Monthly Medical Journal, in August, 1844, showing that, "of thirteen primary amputations performed in the Royal Infirmary of Edinburgh for compound dislocations of ankle-joints, only two of the patients recovered, a mortality which may well incline the surgeon to act upon the doctrines inculcated by Sir Astley Cooper." Sir William Ferguson thinks, however, "that in attempts which have been made to save the foot the results in all the cases have not met with the same publicity; that the instances where amputation has afterward been necessary, or where death has been the consequence, have also not been recorded." Hamilton, in his work on Fractures and Dislocations, follows in the main the practice of Sir Astley Cooper.

Holmes' System of Surgery (Vol. I, page 981) has this to say concerning compound dislocation of ankle: "It would be impossible to lay down rules for the treatment of every case. If arteries are wounded and bleeding, they must be tied; if bones are comminuted, the pieces must be removed; resection may be required in some cases, amputation in others. As a general rule amputation is improper, and, except under the circumstances to be presently mentioned, the preservation of the limb ought always to be attempted. Primary amputation may be advisable on account of the advanced age of the patient, or the extensive laceration and contusion of the soft parts, especially if complicated with wounds of the blood-vessels, or with extensive shattering of the bone."

Mr. Erichsen has the following to say of these injuries: "If, however, the bones be projecting and comminuted, and the soft parts extensively lacerated, the question of amputation will necessarily arise. In many cases the operation may be avoided by adopting the treatment recommended by Hey, of sawing off the malleoli, removing splinters of bone, and supporting the limb at the same time upon a McIntyre's splint. If the joint be still more seriously injured, the posterior tibial artery torn, or the foot greatly contused, and especially if the patient be aged or his constitution shattered, recourse should be had to primary amputation. I believe that the disinclination on the part of surgeons to amputate in these cases, greatly owing to the strong expression of opinion by Sir Astley Cooper in favor of the attempt to save the limb, has in many cases been carried to such an extent as seriously to add to the patient's danger. Secondary amputation may be rendered necessary in consequence of gangrene, erysipelas, or extensive suppuration."

Bryant says: "In the ankle-joint, where the accident is most commonly seen, the case should be treated as one of fracture and wounded joint by an immovable splint after its reduction and the persistent application of cold, either by means of ice or irrigation. In exceptional cases only when the soft parts are much injured and in very feeble subjects ought amputation to be thought of, exercising of the articular surfaces being always a point for consideration."

No writer upon surgery, before or since the time of Sir Astley Cooper, has written with such clearness and elaborateness of detail upon the subject of compound dislocation of the ankle joint as did this illustrious English surgeon. Though written more than a half century ago, his article on the subject is beyond question the best yet given to the profession. He gives the full particulars of no less than thirty-two cases of this injury, about one half of which Sir Astley treated himself, the others being reported to him by his eminent surgical friends. These thirty-two cases embrace nearly every kind of injury of this joint one could well imagine.

The subject was evidently one of unusual interest to this distinguished surgeon. Before his writings amputation had been the rule; it was almost invariably done. It was to put a stop to the unnecessary loss of so many limbs that he devoted so much of his valuable time. The influence of his teaching and writing was soon felt, for no warning from such a leader as he could pass unheeded. The effect was healthy, and from this time on surgeons thought of and respected conservatism in these injuries, whether they practiced it or not. Never yet, it seems to me, have writers on surgery paid sufficient attention to the opinions of Cooper, for they all cite hypothetical cases, and say here amputation should at once be performed. Cooper reports case after case from his own practice where the lesion would apparently be more severe, and yet his patients would recover with a good leg.

All authors here quoted, except Cooper, say that amputation must be done if either of the main vessels are ruptured. They say you should not hesitate a moment. Cooper reports two cases where the soft parts and bones were not only badly injured, but the anterior tibial artery ruptured. In both good results followed conservatism. Add to the treatment of Cooper what is embraced by the words "antiseptic surgery," and, in my judgment, we have the plan of treatment which, if properly carried out, will insure the greatest good and comfort to the patient, and liberally enrich the reputation of the surgeon. I am one of those persons who believe that almost any kind of a natural limb is preferable to the best artificial one that can be made. I wish to dwell upon one point, and that is, the use of the drainage-tube in suitable cases. Perhaps the animal tube would be the best, as causing less irritation. The study of published cases shows the frequency of abscesses forming on the side opposite to the luxation. It happened in both of my cases, and in a number of those related by Cooper. An opening should be made on the side opposite the luxation and a bone drainage-tube carried through the joint, in cases where from the entrance into the joint of extraneous matter, as dirt, pieces of bone, etc., you are reasonably sure suppuration will ensue.

It should be left there until this danger has passed. I am certain to carry out this practice in the future, for if my cases taught me any thing it is this. It is not suggested by any author I have read. One would think, from the situation of the posterior tibial artery, that it would be necessarily ruptured in many of these luxations inward. Such, in fact, is not the case. Cooper never saw it.

Rupture of the posterior tibial artery would of necessity add gravity to the case, for it is accompanied in its course by the principal nerve of the leg. But even here the case is not hopeless, for the anterior tibial is a vessel of considerable size, and, its anostomosis with the posterior tibial being free, enough blood will be sent to the foot.

Compound dislocations of the ankle may be treated in three ways, (1) Bones reduced entire; (2) the ends of the protruding tibia and fibula sawed off before reduction; (3) amputation.

1. Where reduction is effected without sawing off end of tibia and fibula, if the integuments are nipped into the joint, and in this way prevent reduction, the wound in the soft parts should be sufficiently enlarged to facilitate it. When there is no fracture it is always proper to reduce the dislocated tibia or fibula, as the case may be, and if they can be made to maintain their proper position the case will do well. It is difficult to keep the bony surfaces in apposition after a luxation in this situation. Reduction is facilitated by flexing the leg upon the thigh, in this way relaxing the gastrocnemius and other muscles before extension of the foot is made.

The joint being thoroughly cleansed by an antiseptic fluid passed freely into it, the external opening should now be closed with animal or wire sutures, the parts dressed antiseptically, and all inclosed in plaster of paris. The joint is to be made absolutely *immobile*, and nothing does this so well as plaster of paris.

If any uneasiness is felt by the surgeon as to the propriety of closing up such a wound so that it can not be watched, a window can be left. The fracture-box is also admirably adapted to the treatment of these injuries.

Sir Astley Cooper used an external lateral splint with a foot-piece for internal luxations, and an internal and external splint, the latter with an opening over the wound, in external luxations. No foot piece was used in the external luxations, the heel being allowed to rest upon a pillow. He covered the wound with a piece of lint saturated with the blood of the patient and applied over this the many tailed bandage. His rule was not to disturb dressings for ten days.

2. There is another method of treating these injuries, viz., sawing off the ends of the bones before they are returned. The reasons for so doing are as follows:

1. Difficulty of reduction.

2. It is difficult to maintain the articulating surfaces of tibia and astragalus in apposition, especially in cases of oblique fracture of tibia. The sawn extremity of the tibia readily remains in contact with the astragalus, and adhesion is more rapid.

3. Spasmodic contractions of the muscles are lessened by sawing the bone, bringing about, as it does, their complete relaxation.

4. Cases recover more rapidly, for there is less suppuration.

5. Prognosis as to life is better when the bones are removed than when reduced entire.

The objections to this plan of treatment are two:

1. The limb becomes shorter.

2. The joint becomes necessarily anchylosed.

The first objection amounts to but little, for the limb is not sufficiently shortened to interfere with its usefulness.

Is the second objection sustained by experience? It certainly is not. In each of my cases both tibia and fibula were removed, and in one of them the upper surface of astragalus along with them, yet good motion was secured in each case; and I believe that it will usually follow, when passive motion is begun at the proper time and kept up for some weeks.

To get good results in these injuries, an extraordinary amount of care and attention is required. Sir Astley Cooper performed an experiment which settles this question. I give his words: "I was anxious to ascertain what steps nature pursued in order to restore a part in which the extremity of a bone forming a joint had been sawed off; and I therefore instituted the following experiment: I made an incision upon the lower extremity of the tibia at the inner ankle of a dog, and cutting the inner portion of the ligament of the ankle-joint, I produced a compound dislocation of the bone inward. I then sawed off the whole cartilaginous extremity of the tibia, returned the bone upon the astragalus, closed the integuments by suture, and bandaged the limb to preserve the bone in this situation. Considerable inflammation and suppuration followed, and in a week the bandage was removed. When the wound had been for several weeks perfectly healed, I dissected the limb. The ligament of the joint was still defective at the part about where it had been cut. From the sawn surface of the tibia there grew a ligamento-cartilaginous substance, which proceeded to the surface of the cartilage of the astragalus, to which it adhered. The cartilage of the astragalus appeared to be absorbed only in one small part. There was no cavity between the end of the tibia and the cartilaginous surface of the astragalus. A free motion existed between the tibia and astragalus, which was permitted, by the length and flexibility of the ligamentous substance above described, so as to give the advantage of a joint where no synovial articulation or cavity was to be found. This experiment not only shows the manner in which the parts are restored, but also the advantage of passive motion; for if the parts be frequently moved, the intervening substance becomes entirely ligamentous; but if it be left perfectly at rest for a length of time, ossification proceeds from the extremity of the tibia into the ligamentous substance, and thus produces an ossific anchylosis."

There will, however, be cases where nothing but amputation will save life. Of course it is manifestly impossible to say exactly what amount of injury to soft tissues and bones will require amputation. The surgeon of experience, with general rules to follow, will usually make the proper decision. If in doubt, he should incline toward a conservative treatment. A few general rules are given:

1. An extensive lacerated wound with comminution of bones, caused by direct crushing violence, as railway cars, etc., will require amputation as a rule.

2. Advanced age makes amputation probable; yet one of the very worst cases reported by Cooper was that of a butcher, seventy-three years old, and of intemperate habits, who recovered rapidly.

3. Where the tibia is dislocated externally it makes a more serious wound than when internally, causing more injury to bone and soft

parts. For this reason amputation will be necessary in a greater number of these cases than in internal luxations.

4. If a large vessel be divided, and at the same time the soft parts badly lacerated, amputation may be necessary. It is *not imperatively demanded*, as most authors state.

5. Excessive suppuration, great irritability of constitution, gangrene, tetanus, deformity, all may call for amputation secondarily.

LOUISVILLE.

Societies.

LOUISVILLE MEDICAL SOCIETY.

Stated Meeting, January 20, 1887, President Dr. Wm. Bailey in the chair.

Dr. Rodman reported two cases of injury of the ankle-joint. (See page 103.)

Dr. Yandell, in opening the discusssion, said that both the cases reported were of much interest. One illustrated how even any unpromising conditions could be overcome and made right by intelligent care. The other proved how quickly well-managed injuries of the ankle-joint, even when of severe character, recovered. For a long time now he has attempted to save the foot in all ordinary injuries of the ankle, resorting to amputation only in those exceptional cases where the dislocation was the result of a great crush, a mash, as in railway accidents, or a fall from a great height. It goes without saying, that whether the injury of the joint be great or slight, if the arteries be involved, amputation is necessary. The use of antiseptics has much lessened resort to the knife. Many cases of dislocation of the ankle are saved under antiseptics that, treated without them, would have demanded amputation. Fixation of the joint is almost as important as either antisepsis or drainage. He was sure he had saved many ankles by the plaster dressing, and that alone, long before antiseptic surgery came into vogue. Further than this, he has saved some limbs that, after being saved, were so stiff and unshapely, and of so little use, and of so much annoyance to the patient, that the effort to save them had better not have been made. The future usefulness of a crushed joint, if saved, should never be lost sight of by the surgeon. An artificial limb is incomparably better than a stiff, deformed, sensitive, and painful limb. Unfortunately, such conditions are very often seen. Dr. Yandell said he had more than once labored for weeks and weeks to save a foot crushed by a railway car, and after doing so had seen it prove not only useless, but to such a degree an encumbrance, that he had subsequently done amputation and provided an artificial limb. It often times happens that the injury is so extensive and so severe that, though the foot may be saved, it renders the patient far more helpless than he would be had the foot been sacrificed and an artificial leg worn in its place.

Dr. von Donhoff thought the injuries in cases where limbs were subjected to crushing injuries were too great to admit of the limb being saved. The greatest trouble in these cases lay in the opening of the synovial sac. He thought as good results might be obtained from the method of Sir Astley Cooper as from antiseptic dressings. A great trouble with many of these cases, especially young people, was that in the course of one, two, or three years the tendinous structure forming the union between the fragments would become ossified and the ankle would become stiff.

Dr. Vance would emphasize the position of Dr. Yandell.

The question for the surgeon in these cases of compound fracture is, will the result be superior or inferior to an artificial limb? In the present state of mechanical skill and ingenuity he believes any modification of a natural limb inferior to an artificial one.

Taking into consideration the increased risk of operations about the joint, amputation is best made about four inches above the ankle-joint.

Dr. Roberts had had some favorable experience in this class of cases. The proper course of proceeding depends greatly upon the nature of the injury. In falls there is not usually enough injury done to the soft parts to justify amputation.

When great injury is done, and especially when the posterior tibial artery is destroyed, but little blood gets to the foot, and amputation is required. When not the result of direct violence, and the patient is not too old, an attempt should be made to save the limb.

Dr. Rodman (in conclusion), in regard to antisepsis, believed that about as good results had been reported by Cooper as having been obtained by covering over the parts with cotton saturated with blood as by antisepsis. A peculiar feature about these cases was that abscesses have been almost invariably formed on the side opposite to the injury. As to resulting loss of motion at the ankle, compensatory mobility between the tarsal bones greatly compensates for stiffness at the ankle. As suggested by Dr. Roberts, we have in artificial wool a better dressing than cotton.

Dr. Cecil reported a case of poisoning at the City Hospital from vaginal injections of corrosive sublimate, 1–2000. There was pain, with diarrhea, and a slight blue line on the gums.

Dr. Leber said the question of vaginal injections of mercury was discussed at the recent meeting of the Congress of German Physicians at Berlin. The opinion was advanced by Schroeder, Schatz, Martin, and others, that the sublimate injection should not be made stronger than 1–5000, 1–2000 being regarded as positively dangerous.

Dr. von Donhoff reported the case of a woman about recovered from an attack of enteritis or entero-colitis who fell over a chair on her abdomen. Stercoraceous vomiting set in, and four hours afterward he performed a laparotomy, and found the mesentery perforated in more than twenty places with gangrenous sloughs. The ileum was found invaginated in the colon, and one or two feet of it drawn out. A large quantity of blood was found in the abdomen. Owing to the conditions found to exist, the operation was abandoned and the wound sewed up. Five hours afterward the woman died.

Dr. Roberts reported the case of a brakeman who fell from the top of a car, alighting on the right hip, sustaining an intra-capsular fracture of the femur. He did not lose consciousness. Blood oozed from the right ear for two days and a half. On the second day he discovered paralysis of the muscles supplied by the facial nerve on the corresponding side. The patient could not hear the ticking of a watch, but could hear a tuning-fork applied to the mastoid bone. He found the tympanum ruptured. Would like to have expression of opinion as to whether there was a fracture, and, if so, its exact location.

Dr. Dabney was of the opinion that the injury was done to the nerves at the point of their passage through the petrous portion of the temporal bone, and that it was not likely the symptoms were due to injury of the brain structure. The deafness was due to the rupture of the tympanum, as evidenced by the fact that the tuning-fork could be heard through the solid structures.

S. G. DABNEY,
Secretary.

LOUISVILLE CLINICAL SOCIETY.

Stated Meeting, February 1, 1887, J. A. Ouchterlony, M. D., President, in the chair.

Dr. Bloom read a paper on the subcutaneous injection of calomel in the treatment of syphilis. (See page 100.)

In the discussion which followed, Dr. Cottell said: The chemical change undergone by calomel thus injected, whereby it is converted into a soluble salt of mercury, and thus rendered fit for absorption, is a question of interest. Does it become a bichloride or an albuminate? I think the great advantage of the method is in the slow absorption of the mercury, as is the case when the drug is administered by inunction, with this advantage, that by the method proposed the drug is held in place in definite quantity, whence it is slowly diffused through the system. In this connection I recall the case of a woman who had syphilis *ignorans*. Secondary symptoms were well marked. Mercurial inunctions were faithfully employed, but nevertheless a severe iritis occurred, which seemed to prove that the mercury had failed of absorption. Recourse to the biniodide internally was followed by rapid improvement. In such cases, where a speedy result is desired, mercury hypodermically administered might be the best method of medication.

Dr. Leber spoke of the possible advantages of calomel subcutaneously administered over other methods of administration; as, for instance, when traveling men, who can not long remain in the city, come for treatment. To such people two injections, as indicated by the reader, might be given every two to four weeks. He himself had a preference for the oleate of mercury, and was in the main satisfied with it.

Dr. Roberts: It is the rule, when drugs are administered hypodermically, that they are absorbed at once. The slow elimination of the mercury when calomel is thus administered is a striking feature of its action. In former years I used injections of the bichloride, but abscesses almost always followed. I have often been disappointed in the effects of mercurial inunctions, and now prefer the mercurial vapor-bath to all other forms of treatment.

Dr. Anderson stated that he had recently had under treatment several cases of syphilis, and that he considered Keyes' method the best. He had been led to suppose that the hypodermic method and vapor-bath had been generally abandoned. He employed protiodide of mercury, beginning with one sixth grain, increasing the amount gradually until he reached the maximum dose, the greatest quantity that the system will tolerate without toxic disturbance. He found this treatment very satisfactory, and mentioned the case of a butcher with mucous patches, enlarged glands, sore throat with difficulty in swallowing, who is now taking eight pills of one sixth grain each of the protiodide daily, without showing any systemic effects of mercury. His symptoms have greatly improved. He has not yet reached the maximum dose. When the maximum dose is determined, Dr. Anderson gives half that quantity, if it be desirable to continue the treatment for a long time.

Dr. Satterwhite has had considerable experience with females suffering from syphilis. He did not like mercurial inunctions, because of their uncleanliness and the cutaneous irritation they were so apt to produce. He generally uses one twentieth of a grain of bichloride of mercury with iodide of potassium in varying doses of ten, fifteen, or twenty grains *pro re nata*. He had abandoned the vapor bath because it too often produced salivation.

Dr. Matthews thought that nine doctors in ten gave mercury alike, and gave it by the mouth. He prefers the method mentioned by Dr. Anderson, and has never known a patient under such treatment to fare badly.

Dr. Leber said that his experience proved to him conclusively that one can not use the same methods and preparations with all patients.

Dr. Bloom closed the discussion by stating that he himself had had no experience with calomel injections. He had used bicyanide hypodermically extensively in Vienna, but with no startling results. Other methods had shown themselves equally efficacious. But in this case a new remedy, one insoluble, had been discussed, and the experience of such conscientious men as Kopp and Chotzen led him to think that the results obtained justified a further and more general trial. Should these investigations prove the experience of the gentlemen quoted, it would place the subcutaneous injection of calomel as foremost and best of all the methods of administering mercury. As regards the methods mentioned, he had always found the treatment by inunction as the most reliable, and believed that he is supported in this preference by the best specialists at home and abroad. He preferred inunctions of simple unguentum hydrargyrum to those of the oleate, although the latter was the more cleanly and elegant preparation. Of late he had been using the lanolin as a base, but was not at present in position to claim any superior advantage for it. The vapor-baths have been almost universally abandoned by specialists. They were considered as specially liable to be followed by mercurial toxis. Keyes' method he thought a good one for the average and milder forms of syphilis. It, with some little variation, is preferred by the French, yet even they place most reliance in the inunction treatment in severe forms, and where sufficient care is taken and all the details observed, no remedy of those hitherto used will be found equal to it. The speaker had used extensively the tannate of mercury as introduced by Lustgarten, and preferred it to any other form for internal administration. He intends to give the subcutaneous injection of calomel a fair and prolonged trial, and will report the result to the Society in due time.

Dr. Ouchterlony reported a case referred to him from the country. The patient was in good general health, but had a large number of subcutaneous lobulated tumors, very numerous on the forearms and fewer on the legs. A brother of the patient similarly affected had previously been to Hot Springs, where some of the tumors had ulcerated. The attending physician had at one time believed the tumor to be either cheloid or lymph adenoma, but had since abandoned this opinion. Dr. Ouchterlony excised one of the tumors, and on microscopical examination found it to be a simple lipoma. The case was interesting on account of the number of the tumors, and because of the possible influence of the trade of the patient in the cause of the disease (he was a baker). The brother of the patient above referred to was also a baker.

I. N. BLOOM, M. D.,
Secretary.

Reviews and Bibliography.

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the fiscal year 1886. Washington: Government Printing Office. 1886.

The report of the Supervising Surgeon-General for the fiscal year just closed shows a continuance of the good work already so well under way.

There is no other instrumentality in the country by which results of equal excellence can be attained as in this service.

The surgeons in charge of the various hospitals have entire control, and, being secure in pay and position, have no motive to conceal or color reports, which too often is the temptation of many others, especially in private hospitals. Besides, the enforced system and required uniformity make it an easy matter to compare results. The Marine Hospital Service is rapidly becoming recognized as the most appropriate organization for guarding the country generally against epidemics, and both for that purpose and as a nucleus in time of large sudden need of skilled surgical assistance by the country as well as an educating force, the service promises more and more to commend itself. This more especially while it maintains such able management as at present characterizes it.

The report before us, besides the regular statistical matter, gives an account of such work as has been done by the service in the matter of quarantine, and a number of special reports by the several surgeons of decided interest. Among the latter is a careful article by Surgeon S. A. Armstrong, of Memphis, on the frequency of disease in the white and colored races, to which we hope to refer at another time more fully.

Among the reports we see, with something of regret, cases of typho-malarial fever mentioned. We trusted this word had been buried in its birthplace.

The Marine Hospital at Louisville makes an excellent showing, and we learn from the hospital records that in between a thousand and eleven hundred cases there have been but nine deaths, which, considering the character of patients to be dealt with, is a showing upon which the surgeon in charge, Dr. John Godfrey, may well congratulate himself.

The report closes with a *résumé* of the conclusions adopted and of the propositions rejected by the technical commission of the International Sanitary Conference of Rome (1885).

The National Dispensatory, containing the natural history, chemistry, pharmacy, action and uses of medicine, including those recognized in the Pharmacopeias of the United States, Great Britain, and Germany, with numerous references to the French Codex. By ALFRED STILLE, M.D., and JOHN M. MAISCH, Phar. D. Fourth edition, revised and improved. Pages, xvi—1781. Philadelphia: Henry C. Lea's Son & Co. 1886.

This, the most comprehensive and exhaustive commentary on the Pharmacopeias of the United States, Great Britain, and Germany, which has yet appeared, might with great propriety have been called the International Dispensatory.

By this last revision it has been brought fully up to the limit of existing knowledge upon the subject treated. The references to the British Pharmacopeia have been changed to correspond with the latest and greatly altered edition of that work.

Besides other features of improvement, the most recent advances have been embraced in the shape of "Addenda" of all new and important articles, among the most noteworthy of which are antipyrine, cocaine hydrochlorate, cascara sagrada, iodol, thalline, and urethane. No pharmacist will be without this work, and no physician should be without it. Especially does it commend itself to therapeutical writers as a check in the matter of the discovery of new uses of medicines, which will prevent them from so often giving out as new what will be found here pointed out as long since known.

The Principles and Practice of Operative Surgery. By STEPHEN SMITH, A. M., M. D., Professor of Clinical Surgery in the University of the City of New York, etc. New and thoroughly revised edition, illustrated with one thousand and five wood-cuts. Pages, vii—877. Philadelphia: Lea Brothers & Co. 1887.

Eight editions of the Principles and Practice of Surgery, by Stephen Smith, attest his popularity as an author. It was realized, however, that note must be taken of the advances in surgery that amounted really to a revolution, and to which none in this country had contributed more freely than the author.

This work therefore presents a thorough revision, bringing its teachings into the fullest accord with the most advanced principles of antisepsis. The illustrations of operations have been drawn from every source, and leave scarcely a possible operation unrepresented. The style is lucid, direct, and elevated, marking this altogether as one of the really excellent books.

Medical and Surgical Memoirs, containing investigations on the geographical distribution, causes, nature, relations, and treatment of various diseases, 1855–1886. By JOSEPH JONES, M. D., Professor of Chemistry, Tulane University, Louisiana, etc. Price, $6.50.

In this work Prof. Jones has evidently not sought pecuniary profit, but the preservation of useful knowledge in a permanent form and the solid fame which justly belong to the patient and careful collector of valuable facts. There are few men living blessed with a greater amount of patient perseverence and capacity for continuous work than Prof. Jones, and a cool judgment withal that permits the safest discrimination.

Only a few hundred copies of this work have been printed, and the types have already been distributed. Whoever examines this work will find that malaria is not altogether a bar to intellectual labor of the most assiduous kind.

Novel Methods of Treating Diseases of the Middle Ear. By Seth Bishop, M. D., of Chicago. Reprint.

The Medals, Jetons, and Tokens illustrative of Obstetrics and Gynecology. By Horatio R. Storer, A. M., M. D. Newport, R. I. 1887. Reprint from New England Medical Monthly.

Foreign Correspondence.

PARIS LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Professor Peter, who is an avowed adversary of M. Pasteur's method of treating hydrophobia, takes every opportunity of bringing to the notice of the public any thing that may detract from the merits of his treatment. Such an opportunity lately presented itself in the death of a young man who was bitten by a dog reputed to be mad, and who had undergone M. Pasteur's new or intensive method within forty-eight hours of the accident. He was inoculated at M. Pasteur's laboratory, which operation he had undergone thirty-six times; although in a later part of the discussion, which was opened by Professor Peter at the Academy of Medicine upon the subject, it was said that it was only nineteen times, and not thirty-six, that the inoculations were performed. Four days before his death the patient was seized with pains originating, not from the bitten part, but from the points where the inoculations had been practiced. He then fell into a state of stupor, and died in a paralytic condition. In this latter phenomenon M. Peter saw the result of the intensive treatment, as the paralytic form of rabies was extremely exceptional in man.

By the merest chance, three other cases of death occurred after M. Pasteur's intensive inoculations were brought to M. Peter's notice, which he immediately communicated to the Academy of Medicine. The first was that of a man at Dunkirk, aged forty-nine years, who was bitten on the 19th of August last. He was immediately sent off to M. Pasteur's laboratory, where the intensive inoculations were practiced. On the 29th of December, that is one hundred and twelve days after the bite, rabies of the convulsive form manifested itself, and the patient succumbed on the 30th of January. The second case was that of a man, aged forty-six years, who was bitten on the leg three times, on the 12th of October, at Constantine. He was sent to Paris, where, on the 20th of the same month, he was submitted to the intensive inoculations, and died on the 13th of November of rabies of the paralytic form. The patient was first seized with the ordinary symptoms of rabies—difficulty of spitting, an aversion for liquids, the urine was albuminous, the pains were felt at the parts inoculated as well as at those which were bitten. The third case was singularly a grave one. It was that of a man, aged forty-two, who was bitten on the leg on the 12th of November last. He was treated from the 17th, and died a month after from paralytic rabies. So far this third case was analogous to the two first. But it is here where the gravity appeared. After a minute examination, and some days after the bite, it was discovered that the dog was not mad. The conclusion therefore is, that instead of inoculating the remedy, it was rabies itself that was inoculated, and consequently death was caused by inoculated rabies, and not from the bite of the dog. M. Peter remarks on the other cases, that they were proofs that the two viruses, that of the dog and that of the rabbit, had combined to produce a sort of mixed rabies, in which the different symptoms are confounded.

M. Grancher, representing M. Pasteur, who was prevented from attending in person from ill health, and MM. Brouardel and Dujardin-Beaumetz, undertook to reply to M. Peter. M. Grancher declared that they never had the pretension of being infallible with M. Pasteur's anti-rabic inoculations. The unsuccessful cases were always published as well as the successful ones. All medications are alike in that respect; the more they are efficacious the more risks they incur. It will be remembered that it was after the death of the three Russians who were bitten by wolves that M. Pasteur was induced to introduce the intensive inoculations which M. Peter finds so much fault with. These inoculations have given their measure. Of thirty-six patients treated in this way, there has not been a single death. M. Grancher concludes with the statement that before the introduction of M. Pasteur's treatment the mortality from rabies was eighty per cent. Since then, of 1,980 persons inoculated, there have been seventeen deaths, including that of the first case referred to by M. Peter in his first report to the Academy of Medicine.

The response of M. Brouardel may be thus summarized: The deaths brought to notice by M. Peter were caused by some other malady than rabies, for one may be bitten by a dog and be affected at the same time by a grave malady. It was thus that in a child, treated by M. Pasteur and dying soon after, the existence of albuminuria was established.

This is rather stretching the point, as observed by M. Peter, who recalled that the late Profesfor Robin had long ago brought to notice the presence of albumen in more or less quantity in the urine found *post-mortem.*

M. Dujardin-Beaumetz declared that after two visits made by him to the first patient referred to by M. Peter, he had reason to believe the presence of gastro-enteritis. However, the case was a doubtful one; but we are not to infer from this that Pasteur's method should be given up any more than chloroform because fatal accidents have occurred therefrom.

The discussion was resumed at the Academy at its meeting on Tuesday last. M. Peter, on ascending the tribune, stated that he had gone to M. Pasteur's laboratory to look over the register, which was readily placed at his disposal. He there discovered another death, that of a young man of Naron, in the department of the "Oise," which took place on the 3d January, thirty-three days after the bite, and thirty-three days after the commencement of the inoculations. The report of the attending physician had not arrived, but according to information received personally by M. Peter, he had reason to believe that the symptoms of the malady to which the patient succumbed were those of rabies of the paralytic form. There was yet another case reported from Gourgeon, which took place thirty-six days after the bite. Neither delirium nor convulsions were observed in the patient, but he experienced great pain in the parts inoculated. The patient was reported to have died completely paralytic. The laboratory does not conceal the deaths, but, observes M. Peter, it would do well to inform the public thereof, and more frequently than it does at present. Continuing his argument, M. Peter concludes with the statement that rabies of dogs is of a convulsive character. Inoculated in man, the partisans of Pasteur's method declare that the disease thus produced is also of a convulsive character and which is attributed to the canine virus. They admit that the rabies of the rabbit is paralytic, and yet when this is inoculated into man they refuse to acknowledge that the disease thus produced in the latter is also rabies of the paralytic form. It must be remembered, he added, that before these inoculations the paralytic form of rabies in man was altogether exceptional, and he endeavored to impress on his hearers the fact that if the original method of M. Pasteur was inefficacious, the intensive method threatens to be most perilous. M. Vulpian and others responded to M. Peter, but being partisans of M. Pasteur's method, their arguments need not be reproduced here, as they only repeated what has been published over and over again.

Paris, January 21, 1887.

KREATININE AND THE REACTION FOR SUGAR. Dr. George Johnson states that the substance in urine which reduces picric acid in the presence of potash is kreatinine. This kreatinine, which causes a reaction like that of glucose, may be removed by a simple method devised by the younger Johnson.—*Medical Record.*

A PLEA FOR THE MORE CAREFUL INVESTIGATION OF THE URINE IN INFANTS AND YOUNG CHILDREN.—Dr. L. E. Holt, of New York, read a paper, at the late meeting of the Medical Society of the State of New York, on this subject, in which he said that medical literature contained but little on kidney disease in infants, except as occurring in infectious diseases. The speaker had recently seen six cases, and a friend of his had met with two, of primary disease in the kidneys. Five of the patients had died. He laid much stress on the necessity for examining the urine in all cases of disease in infants.

Translations.

DETERMINATION OF SEX IN DOMESTIC ANIMALS.—Dr. M Wilckens, of Vienna, who conducted observations in thirty thousand instances of birth among domestic animals, has deduced the following conclusions:

1. The locality (soil and climate) has an influence upon the proportion of the sexes, but probably only by means of the nutrition of the fruit in the uterus of the mother.

2. Of the time of year in which the animal brings forth, warm weather favors the production of the male sex, and cold the female; the former probably because, in general, it diminishes the desire for food and consequently the nutrition of the animal, the latter because the cold increases them.

3. Neither the age of the male parent, the relative sexual energy, nor the age of the semen has any influence upon the sex of the offspring.

4. The age of the female parent influences the formation and proportion of the sexes of the offspring, but only in that, as a rule, primiparæ and young mothers produce relatively more female young, old mothers relatively more male offspring.

This influence of age may be referred to the fact that in general young mothers nourish their offspring in utero better than old.

5. The nutrition of the ovum influences the determination of sex in general in such a way that the better nutrition favors the production of females, and the poorer nutrition the production of males.

6. In reference to the influence of nutrition upon the formation of the sex of the offspring regard must be had to an influence not yet discovered; because, one and the same female parent, under the same conditions of nutrition, does not always produce the same sex.

7. On account of this as yet unknown influence the definite prediction or voluntary production of the sexes is impossible. It can only be said with probability that young and well-fed mothers will produce relatively more female offspring, and old and ill-fed mothers a relatively larger number of male offspring.—*Deutsche Med. Zeit.*

Pernicious Anemia. — Dr. G. Reyher, of Dorpat, says that from the reported cases of pernicious anemia it is evident that all cases occurred in individuals suffering from bothriocephalus latus, and that cure resulted only after the removal of the parasites. These must be therefore regarded as the cause of the disease, or at least as inducing it by their presence.—*Ibid.*

Cases of Peculiar Pruritus of the Female Genitals.—Dr. L. Prochownik, of Hamburg, reports three cases in which pruritus was limited to the skin of the outer surface of the labiæ, and on one side, the vaginal mucous membrane appearing not to be all involved. Atrophic alterations of the skin were present, and the hair of the vulva was prematurely gray.

There were also, in one case, on the labium majora of the affected side large varices; in the second, in which the itching ceased during pregnancy and lactation, there were some hard scars in the lower part of the vulva, while in the third there was marked leucorrhea.

Dr. P. thinks that in most cases of pruritus of the female genital organs, neither the chemical action of the secretion nor the local alterations of the vulva are the primary cause of the itching, but that this is to be sought in the course of the sensitive nerves, the point of the irritation in which is to be sought far removed from the local disturbance. Hence the futility of local treatment, while internal medication is at times useful.—*Ibid.*

The Psychical Function of the Entire Body.—Dr. E. Morselli, of Naples, in a work on this subject, discourses as follows:

It is generally conceded that the spirit is restricted to the brain, or even to the cortical substance, because the only phenomena that enter into the field of consciousness are those which are developed in the gray matter of the cortex. But the idea of consciousness in the old sense of the word can no longer be entertained; more properly we may speak of conscious psychical phenomena.

As these states of consciousness, or conscious psychical phenomena, follow each other in time by arousing one another by reason of a physiopsychological law of casuality (association) their succession causes them to seem to us an individual unit. But in reality this supposed consciousness, one and indivisible, is each moment composed of intellectual and affective psychical states very diverse, having origins more varied in proportion as the *residua* left by previous sensations are varied, and the multitude of impressions proceeding from all parts of the organism is greater.

Every mental act, even the most simple, is the result of a very complex elaboration and association of precedent psychical states produced by an inextricable train of psychological elements, the gross result of an infinite number of elementary biological phenomena. The study of human and animal psychogeny parallel with that of neuro-embryogeny must lead us to admit that the smallest particle of the organism participates in the most complex psychical phenomena, namely, the conscious mental act. From the point of view of psycogeny and ontogeny, the spirit is not only a function of the gray substance of the convolutions, but of all the encephalon, of all the central axis, of all the nervous system, of all the organism.—*Le Progrès Médical.*

Study of the Senile Testicle.—Dr. H. G. Arthoud embraces the results of a series of diligent studies on the testicle in the following *résumé:*

A retrograde metamorphosis begins in the testicles of men at about the fiftieth year of age. This is manifested by a sclerosis about the seminal canals and a gradual disappearance of the epithelium. This sclerosis results in atrophy of the seminiferous tubules and varicose dilatation of the vessels of the epididymis and cyst formations in the epididymis. These phenomena are the result of alteration in the vessels and insufficient nutrition of the seminal glands of old people.—*Deutsche Med. Zeitung.*

Dangers of Antipyrine.—Dr. George D. Hays calls attention (N. Y. Medical Journal) to the dangers in the use of antipyrine when given in repeated doses. Very serious collapse has been observed in several cases.

Abstracts and Selections.

INFLUENCE OF THE RECENT EARTHQUAKES IN CHARLESTON UPON HEALTH.—It may be of interest to have the subject of the Charleston earthquakes presented from a different point of view than that taken by my respected friend and colleague, Professor Porcher, in the Medical News of December 11, 1886.

It is doubtful whether the pathological manifestations produced by the great disturbance are worthy of any special investigation. But the electrical hypothesis advanced by Dr. Porcher should not be allowed to go without comment. The public press has been busy with innumerable theories concerning the causes of earthquakes. The electrical theory seems to have captivated the public fancy. Seismologists, however, have shown that electricity has nothing to do with earthquakes, either as cause or effect.

I have not found the slightest evidence of an electrical disturbance accompanying these earthquakes. I believe that the reports of electric physiological phenomena grew *pari passu* with the diminution of the intensity of the quakes, and with the development of electrical theories in the public press. These reports appear to be biased by the excitement of the imagination, or by preconceived notions, and their value is much diminished by the unmistakable hysteroidal impress which they bear.

If any precise evidence is wanted of the absence of electrical phenomena, it is to be found in the behavior of all forms of magneto-electric apparatus during the earthquakes. Barring the mechanical disturbances, it will be found that no effect whatever was produced upon these instruments, nor was the magnetic needle in the least affected.

The pathological effects produced by the earthquakes may be grouped under three heads: the *mechanical*, the *nervous*, and the *infectious* or *epidemic*.

First. The *mechanical*. The gross injuries need not be detailed here. All honor to the surgeons who did so manfully their duty in those trying times. I shall mention under this head a severe form of conjunctivitis and keratitis which became very prevalent. My friend Dr. Charles W. Kollock ascribes it to traumatism produced by particles of lime and other *débris*. The inflammation was frequently accompanied with superficial and painful ulceration of the cornea. In my own case, and, in fact, in the majority of cases, it was found necessary to assist the local trreatment by the use of stimulants and tonics.

Second. The *nervous* effects. These are well described in the paper of Dr. Porcher. The majority of them were evidently hysteroidal. Of these, some were actually experienced, but others, more particularly the so-called premonitions, were but fabrications of the after-thought, or innocent self-deceptions. The functional disturbances that were not hysteroidal may be set down as symptomatic of shock, of fear, and of a form of vertigo akin to sea-sickness. With these belong the vomiting, the diarrhea, and the frequent micturition. I have no doubt that the severe shock produced in some cases more profound and lasting organic changes in the nervous system. Among such, perhaps, may be placed two cases of multiple neuritis that developed within the two days following the great earthquake. One of them was accompanied with pulmonary embolism and gangrene of the lung.

Third. In regard to what I have called the *infectious* or *epidemic* effects of the earthquakes there must be considerable doubts. Certain it is that a mild fever prevailed during the months of September and October, and that it went by the name of *the earthquake fever*. It was characterized by catarrh of the air-passages, irregular pains, some fever, and occasionally gastro-intestinal disturbances and jaundice. Some suspicions of dengue were at first aroused, but they were soon dissipated. The disease was, in my opinion, influenza. Late in the fall of 1885 we had, in Charleston, an epidemic of this disease; this persisted through the winter. The pulmonary complications were quite severe. During the summer months the epidemic gradually subsided. The earthquake, by bringing together so many of the inhabitants from all classes and places, I suppose, gave a wider distribution to the disease. It now assumed a different form. We had the simple catarrhal fever with occasional cases of the gastro-intestinal and the rheumatic varieties.

Of course, it is difficult to prove that these effects were not due to exposure. Two facts, however, militate against this view, namely, the frequent presence of symptoms that were not exclusively catarrhal, and the warm and dry weather that prevailed during the seismic period. I may add that the recrudescency of the catarrhal epidemic is culminating at present (December 16th) in an epidemic of pneumonia of low type.

I shall state, in conclusion, that the malarial fevers were unusually prevalent. The mortality statistics show an increase of the number of deaths from this cause over the previous year, during the autumn months. But I do not think that they indicate any unusual severity of the type of these fevers.

I have made an abstract from our weekly

bill of mortality for the months of September, October, and November of this year, for purposes of comparison with the previous year:

Number of deaths from	Fall, 1886.	Fall, 1885.
Apoplexy and cerebral congestions (adults)	20	18
Bronchitis (all ages)	8	7
Acute choleraic diseases (all ages), and dentition	38	22
Other acute gastro-intestinal and hepatic disorders	44	43
Consumption and tuberculosis	87	77
Dysentery	7	0
Malarial fevers	37	17
Typhoid fever	10	7
Pneumonia	14	7
Rheumatism	2	3
Trismus nascentium	35	26
Exposure: earthquake	9	
Exposure and shock: earthquake	31	
Injuries received: earthquake	40	

It is to be remarked that many deaths due to special causes were placed under the general heading of shock and exposure, mainly with the purpose of inducing the people to leave their encampments and return to their homes. *Dr. John Guitéras, Philadelphia Medical News.*

Cholera among Children.—At a recent meeting of the Vienna College of Physicians, Eisenschitz gave the following observations upon Asiatic cholera among childen (*Weiner Medizinische Presse*):

He agrees with the opinion of Goldbaum that cholera is a vaso-motor paralysis caused by the specific poison. Except in the case of nursing children, he does not believe that children have a less resistance than adults to infection.

The question of fetal infection from cholera the observer could not answer; his only *post-mortem* examination in such cases was negative. Monti believes that a nursing child may become infected through mother's milk; it is more probable that both mother and child are directly infected from the same source.

Artificially nourished children are much more exposed to infection than those who nurse. This is undoubtedly dependent upon the contamination of the foods taken.

The mortality was fifty-five per cent, which is not greater than among adults; of seven nursing children all died.

Although prophylactic means were insufficient, no physician or nurse became ill.

Structural changes observed were essentially the same as in adults. The swelling of the solitary glands and of Peyer's patches was more widely extended than with adults. In the typhoid stage of cholera infarcts frequently occurred in the lungs. The glandular alterations were especially pronounced in fulminant cases.

Regarding the prognosis, cases which manifested the usual prodromal symptoms, resulted more favorably than those whose advent was sudden. The predominance of vomiting over diarrhea was considered a favorable symptom. Temporary improvement the observer did not consider a ground for encouragement, as asphyxia and collapse frequently recurred.

In general, it can be said that the chances of the individual are in proportion to the average rate of mortality.

The duration of the illness was essentially the same with children as with adults.

The algid stage endured in favorable cases from six to thirty-six hours; in fatal cases from nine to fifteen hours.

In cases which recovered the typhoid stage endured six to ten days; with those who died, from five to fifteen days. With children less than four years old the algid stage did not exceed twenty-four hours.

The condition known as typhoid fever was characterized by the usual symptoms of typhoid fever, with the addition of persistent vomiting, with dilation of the stomach, and without singultus; the matter vomited was often acid.

Eisenschitz treated cholera sicca twice. In these cases the stools are often greenish-yellow, instead of rice-water, in appearance; white flecks appear with the stools, and in the intestines abundant rice-water matter is found. Dejections occur during the algid stage without straining; tenesmus is often present during the typhoid stage. Convulsions the observer considered caused by a condition of hydrocephalus, and not peculiar to cholera.

Post-mortem rise of temperature was often seen.

Regarding treatment, the well-known fact that children bear opium badly would prevent the use of a most valuable agent.

In the prodromal period opium is not indicated, and during the early paroxysms it did no good; in the treatment of vomiting hypodermic injections of one thirtieth and one fifteenth of a grain of opium had proved very efficient.

Monti's use of creosote in vomiting and diarrhea had been repeated with good results, all medication had proved most successful after the high temperature had abated.

The careful ingestion of fluids is permitted; warm baths are grateful and very beneficial; the observer had not had good results in the use of stimulants in the early stages.

The treatment of the typhoid stage is tonic and restorative.—*Ibid.*

The Curability of Alcoholic Cirrhosis. A short time since M. Troisier communicated a case to the Socéité Médicale des Hôpitaux in which the ascites resulting from cirrhosis of the liver had disappeared under the influence of iodide of potassium and strychnia, and the visceral lesion itself had seemed to be cured. In the discussion which ensued, it was pointed out that ascites sometimes passes away spontaneously in the course of a cirrhosis, and, on the other hand, the affection of the liver may go through all its phases without giving rise to peritoneal effusion. M. Troisier now goes further. He asks whether there does not exist a particular form of alcholic cirrhosis in which the lesion, stopping short of destruction of the liver-cells, is susceptible of retrogression; and he relates another case in support of this hypothesis. A confirmed drinker, aged sixty-eight, was under the care of a colleague, and presented all the symptoms of hepatic cirrhosis. Between the months of December and September one hundred and sixty-five liters of fluid were removed by tapping at different times. At the present time the peritoneal cavity is empty, the liver slightly enlarged, and the patient in excellent health. M. Bucquoy said that he had seen several similar cases, and he entertained no doubt that other members of the Society had had a like experience.—*London Lancet.*

A New Micrococcus as the Pathogenic Agent of Infectious Tumors; its Relations to Pneumonia.—Dr. Manfredi (*Gazette Méd. de Paris*) has recently made some researches in regard to the pathogenic agent of morbillous pneumonia in the case of two persons dead of measles complicated with pneumonia. No autopsy could be obtained, and the experiments were made with the saliva, the lachrymal secretion, and scrapings from the skin. The following is a *résumé* of the results obtained:

In the two cases the sputa contained constantly, and independently of the pneumococcus of Friedländer, a specific microccoccus endowed with very pronounced pathogenic properties, to which he gives the name "*micrococcus of lymphoma or progressive granuloma*," which, when inoculated on animals, gave rise to particular pulmonary lesions analogous to those of pneumonia. From the lack of microscopic examinations and on account of the small number of cases on which the researches were based it is not yet possible to say what part this microbe plays in the pathogenesis of secondary morbillous pneumonia.

The micrococcus has an ovoid form, is often seen as a diplococcus, and measures about 0.5μ. It develops tolerably well in all the common cultivating media, and the growth of the cultures is very rapid when air is freely furnished. On thick gelatin, on which typical cultures are obtained, the colonies are presented as discs, first thin and of a blue tint, then thicker and of a pearl gray color, with excavated borders and almost always a nacred reflex on the surface. The growth and multiplication of this micrococcus causes a very marked rarefaction of the cultivating medium. In studying the influence of temperature and dryness on the cultures, it was found that the micrococcus develops in two distinct forms: a transitory and a more permanent.

Inoculation experiments were made on dogs, rabbits, guinea-pigs, mice, and birds. With the exception of the last, which succumbed to what seemed to be blood poisoning, all the animals presented only one form of pathological manifestations, which was most clearly seen in the rabbits and guinea-pigs. Of a total of eighty animals experimented upon only four were refractory and escaped fatal consequences from the inoculations. The micrococcus possesses very pronounced infectious power, which seems to be chiefly exerted upon the respiratory apparatus. This virulence is endowed with a capacity of resistance which is remarkable persisting in the cultures for several months, and resisting successive passages through the animal organism, as was shown by series of inoculations on the animals. It resists desiccation to a marked degree.

As a rule the animals died from the seventh to the twelfth day. At the autopsy there was enormous tumefaction of the parenchymatous organs, principally of the spleen and lymphatic ganglia. The tumefied organs were studded with gray or grayish-yellow nodules. Independently of the nodules the lungs contained the characteristic lesions of a more or less extensive pneumonia, even in the stage of hepatization, even when the inoculation was made in the subcutaneous cellular tissue. The nodules belonged to the class of granuloma, or infectious tumors with granulations. They usually go on to calcification, which begins at the center; they contain the specific micrococci, and are infectious.

This new micrococcus usually leads an intracellular existence, and its pathogenic action consists in provoking caseous necrosis of the parenchyma of the cellule. More rarely they are found outside the cellular elements, and very exceptionally in the vessels. In the foci of degeneration and necrosis developed about it this micrococcus is not killed, for it can exist in a state of great rarefaction or dilution of the elements necessary for its existence.

The pathogenic action of this schizomycete is exerted principally on the lymphatic system, which represents at the same time both the port of entry of the infection and the most favorable medium for the development of the infectious agent. When the latter is inoculated into the subcutaneous cellular tissue there is formed, at the seat of the inoculation, a nodule which often grows very large, and which is made up of a plastic exudate on the way to caseation. It is in the center of this nodule, which is the center of a violent inflammation, that the lymphoid cells are penetrated by the micrococci, and thence transported to the lymph vessels in the vicinity. Along these vessels there are formed a series of small disseminated inflammatory nodules; and thus the whole system becomes infected.—*Journal American Medical Association.*

Rumex Acetosa for Removal of Morbid Growths.—In an adjoining county there resides a so-called cancer doctress, who, like all of her class, professes to remove and cure cancers without the use of the knife. She uses a plaster which in from three to six applications will, so she claims, "kill any morbid growth, and after a few hours' poulticing remove it in one piece." That she does succeed in extirpating tumors there can be no doubt, but the means used by the members of the fraternity has, so far as I know, remained a secret which no reasonable amount of money would induce them to impart to the medical profession or laity. Their patients are numerous, owing to the fact that most most people seem to have an innate dread of the surgeon's knife, no matter how skillfully used, although it is far less painful than this local application. Four of my patients during the last few years have had growths removed in this manner, and when they were not of a malignant nature, have resulted successfully. Two of the most intelligent I requested to keep a sharp look-out and try to discover what it was that was used. One of them, with a sarcoma (not benefited), felt certain that it was the juice of sheep-sorrel, and procured the green plant, and after bruising it made the application to the sore twice a day, and had the satisfaction after the third day to notice the characteristic white appearance, which was the indication that its work was done, then with the poultice removed quite as much of the mass as did the quack doctress. The other one, having gone to her home to be treated, reported sheep-sorrel as his discovery, having, unknown to her, found her gathering the plant in large quantities, from which she extracted the juice, placing it in the sun until it had evaporated to the consistence of syrup, when it was mixed with some excipient, and was ready for use.

Shortly after the reception of this information, a gentleman called to consult me about an ulcer on his nose. It had made its appearance about two years before in the form of a pimple, which in due time opened, but would never heal; a scab would form and in a few days come off, leaving an ugly looking ulcer, to be quickly covered and shed in the same manner. There was an uneasy sensation about it all the time, with, as he expressed it, "an occasional gnawing." He had tried every thing he could hear of and consulted a number of physicians without obtaining relief; it was slowly enlarging and this caused him much anxiety. I found the sore about one sixteenth of an inch in diameter, the surrounding skin slightly indurated, the surface of the cup-shaped sore very red, smooth, and filled with serum; he had been advised to consult this cancer doctress, but was undecided what to do. I told him that I was convinced that all she used was common sheep-sorrel, and that if he would procure some, press out the juice, saturate a piece of cotton and apply twice a day, keeping that put on in the morning in constant contact until renewed at night, until the skin around looked white and shrunken, then poultice, and he would have done all she could do, and save twenty-five or fifty dollars. He "caught on" at once, made the application, and was gratified by the removal of a small hard lump, and the only evidence of its former presence, twelve months after, is a small depressed scar. Whether this result is due to the oxalic acid which is present in this plant I leave for others to determine; but that the juice will cause the *painful* removal of morbid growths, and is the agent used by some, if not all cancer quacks, I am fully convinced.

Eltinge reports a case of epithelioma of the lip cured by the application of the inspissated juice of oxalis acetocella, (Phil. Med. Times, xii, 159). King, I believe, says that it is reputed to possess the power to remove tumors and cancerous growths.—*Amos Sawyer, M. D.; Ibid.*

An Anodyne for Dental Caries.—Dr. K. Gsell-Fels (*St. Petersburgh Med. Woch.*) recommends the following mixture:

Rasped camphor	5 parts;
Chloral hydrate	5 "
Cocaine hydrochloride	1 part.

On heating the mixture to the boiling-point of water, an oily liquid is formed. This is to be applied lightly, and it is said that after a few applications the pain will surely be alleviated.

The Specific Organism in Hog Cholera. Dr. Salmon states that he has certainly found the microbe which is the cause of the swine plague. It is a bacterium, and produces all the symptoms of the disease.

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. III. SATURDAY, FEBRUARY 19, 1887. No. 4.

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D. T. SMITH, M. D., - - - Editors.

A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

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INFLAMMATION AND REPAIR.

The London Lancet notes as a singular fact that pathological ideas of one generation, after being discarded and rejected, are often revived by another and flourish under a new guise.

The progress of discovery seems to bring to light these older notions and to prove how near the truth they were, in spite of the disadvantages under which their promulgators labored. These remarks are elicited in a reference to an essay of Dr. Karl Roser, of Marburg (*Entzuendung und Heilung*, Leipzig, 1886), the key-note of which is to show that Hunter was correct in asserting that repair by primary union runs its course without inflammation, and that inflammation is not only totally distinct from the reparative process, but is to be regarded as a secondary complication, a disease, which retards rather than promotes repair. For a century, says Roser, Hunter's teaching upon these subjects has been misunderstood or wholly forgotten (with, it must be added, one notable exception—Sir James Paget), even by those who have claimed to be his exponents, and the doctrine of inflammation has been by so much confused and perverted. The result has been the greatest diversity of view upon the subject. Some hold that callus is the result of inflammation, others that inflammation is absent in the repair of simple fractures, but occurs in compound fractures from the infection of the wound. Even Cohnheim, who discriminates between infective and traumatic inflammations, does not detach "repair" from "inflammation." The reason assigned for this confusion is, that too much attention has been bestowed upon the process of inflammation and too little upon the cause.

Roser maintains that the healing process is the natural outcome of the nutrition of the system, a purely restorative process, while inflammation is a disordered action resulting from the irritation of microbes and deranging the normal course of repair.

Union by first intention occurs in the protected, clean wound; it is non-infective and non-inflammatory. Healing by second intention is complicated by the intervention of inflammation; the wound has become infected. This, says our eminent contemporary, is the modern interpretation of Hunter's doctrine *and the stand-point which must be assumed in regard to repair and inflammation.* Then, interpreting the views of the German surgeon, it is shown that the existence of pus as well as of inflammation are both due to the presence of micro-organisms, that all acute abscesses contain them, and that they have been detected in the walls of cold abscesses. In reference to the phenomena of inflammatory edema and the allied process of serous inflammatory effusion, a doubt is expressed as to whether in such cases it is essential for the micro-organism to be present at the actual seat of effusion. The heightened temperature, it is asserted, depends upon two factors; one is the old and generally accepted fact of the increased vascularity of the inflamed area, and the other is the vital activity of the microbes themselves.

Of the facts set forth in the essay of Dr. Roser and indorsed by the Lancet, we find none that we are able to dispute and little that we are disposed to deny. But in some of the conclusions there are points so at variance with the latest and most approved teachings in regard to the laws of biology, that we are not able to accept them unquestioningly. There are some principles in biology too well established to be set aside so easily.

If inflammation is a deranged and purely mischievous process, we have presented us the anomalous fact that a universal tendency exists in all higher organisms to take on a self-destructive action injurious in each particular case to the individual, and of no advantage to the race, accomplishing no other end than that of enabling hordes of microbes to feed upon their flesh and propagate. This would certainly be an exhibition of self-abnegation without parallel elsewhere in nature.

But is there not something in inflammation beyond the mere reactionary struggle against the invasion of microbes? Certainly the microbes themselves are not the source of the inflammatory force, and of themselves alone could as little get up inflammation in the living organism as the ever-present "convocation of politick worms" could in the denizens of the cemetery.

There is a something in the animal economy that causes it to react against the ravages of the microbes, and we are not able to see how it is possible to separate that something from the process of repair. The phenomena attending the reaction of the organism against an impairment of integrity are not without parallel in external nature, at least not without apt illustration. If a rock is thrown into the water and a violence thus done to its equilibrium, we have first a depression and then an elevation of the water above the common level at the point where the rock disappears. And why? Because it is the law for every drop of water entering into the formation of that body to move to the repair of every injury of its equilibrium, and as all move at once many more reach the seat of disturbance than are needed; so they crowd on each other and are heaped up.

So the storm, the very cyclone, in the atmosphere types inflammation. An insult to its equilibrium at some point, by the heat of the sun, by condensation of vapor, or some other cause produces a condition of the nature of vacuum, when at once the atmosphere rushes in from all directions, and instead of merely filling the empty space heaps up into mountains at the meeting point, and then rolls back in storms. Yet the process here is not different, except in degree, from that which takes place when the vapor of a child's breath becomes a frost-crystal on the window-pane.

The tree presents the same phenomena in a vital form. It will grow tissue more rapidly at the point where it is injured than in any other place, and the spot of injury may be known by its elevation after all other traces of violence have disappeared.

Inflammation is rebellion of the vital forces against the balking and obstructing of the processes of repair. Ordinary repair is the skirmish, inflammation is the battle. If the skirmish wins the field the army does not show its strength. But it does not follow that the skirmish and the battle are different steps in the campaign, the one hostile to and circumventing the other.

It is true there is often excessive effort of the reparative forces, and an energy displayed that sometimes defeats the object in view, but better now and then too much than always too little.

The carts that fetch brick and the hod-carriers with the mortar may cause the builders great inconvenience by accumulating too much material, but the building would progress very slowly without them.

It may be that there would be no inflammation if it were not for the irritation produced by microbes. It may be that if the pound of flesh even nearest the heart were removed and no microbes ever came to feed, the empty space thus left would never fill again, but remain through life a "pit" indeed.

This we are not ready to deny, nor that mass after mass of flesh might be torn from the body and that the depressions thus left might remain until it became pitted to the bones, as the skin is pitted with small-pox, if no microbes came to call up inflammation and granulations to fill them. But this we do say, that such being the case, the microbes are, in the first place, most beneficent in their action, and secondly, that the forces are the natural reparative forces of the organism, excessive because it is nature's rule that all parts of a system must at once move to the repair of injury or the resistance of invasion. The phenomena are the necessary outcome of the adaptation of the organism to the environment.

TREATING STERILITY IN THE FEMALE.

It is customary for mariners now and then to take observations by the way, that they may ascertain the distances they have sailed, and how far they may have drifted from the proper track.

So with physicians it is not unwise from time to time to compare results under treatment with those which nature gives without interference. The propriety of this move may impress itself upon well-nigh all lines of practice, but just now we propose to ask what results the step yields to gynecologists in the treatment of sterility in the female. Physiology teaches us that the healthy spermatozoid in a normal vagina and uterus may live and retain its power of motion for a period of seven or eight days. Its lateral diameter is about $\frac{1}{4200}$ of an inch, and therefore it will be able to penetrate any orifice through which a red blood cell may pass. Its rate of movement is about one inch in seven and a half minutes, or eight inches an hour. This is sixteen feet a day, or between thirty and forty yards in its short lifetime.

It is quite certain that a spermatozoid seeking the ovule of its affinity could stop at all the way-stations, even do considerable loitering by the wayside, and then reach the ovary in full vigor.

In view of this speed and endurance of travel on the part of the spermatozoid, we might well ask how many women to the million there are whose uterine cervices are too long to be traversed by them, and thus require amputation that the route may be shortened.

Again, in the matter of flexions, where often menstruation is profuse, it is difficult to realize the need of such treatment as even eminent gynecologists have recommended merely to insure the entrance of the spermatozoids. The cases of flexion must be very rare in which the os is pressed laterally against the walls of the vagina with such force as to preclude the entrance of spermatozoids. As a matter of fact, there are perhaps few physicians who have not met with cases where the fundus is the first thing that presents itself to the touch on examination, and yet with pregnancy occurring regularly. It is true that abortion takes place almost invariably if there are adhesions, but still the fact of fecundation in that state remains. We are very far from asserting that no cases are amenable to treatment, but we insist that the conditions are so complex, and require so much knowledge and care, that the great majority of women so affected would do better without than with such treatment as they receive. In acrid conditions of the vaginal secretions, in cases where urinary fistulæ allow the frequent contact of urine with the vagina and cervix, in all physical derangements that produce real obstructions or the effusion of destructive secretions, of course treatment may and often does do good. But we are too apt to forget that many women delay child-bearing for years after marriage, and then, without any treatment whatever, bear children and even become prolific. It is not a rare thing at all for two or three years or more of married life to pass before conception takes place, and cases have been reported in which the first child was born twenty-five to twenty-seven years after marriage.

Whoever may happen to be treating such cases at such times gets great credit for bringing about a condition of fertility. We remember once to have had occasion to treat for malaria a barren woman who had been fifteen years married. She had the ordinary routine treatment of a purgative followed by quinine. The medicine not only cured the malaria, but had also the credit of adding a baby to the joys of the household, the woman having conceived shortly after.

We have met with another case wherein a first child was born twenty-five years after marriage. If some aspiring gynecologist had had the good fortune to give this woman a dose of castor-oil upon the eve of her silver wedding, with what good reason might he have congratulated himself that some other aspiring gynecologist had not been permitted to spay her.

Too often it happens that our successes, limited as they are, comparatively speaking, are but coincidences, and it may not infrequently happen that, instead of promoting fecundity by our surgery, we really impair it.

Prof. Bandl is not dead, as recently reported, but has been seriously ill.

Notes and Queries.

Rhigolene is a better agent for the production of anesthesia, in many operations upon the nose, than cocaine, according to Dr. William C. Jarvis. Dr. Jarvis has recently reported (Eastern Medical Journal) the results of three years' experience with this agent.

A Signal Failure with Narceine in the treatment of whooping-cough is reported by Dr. L. Eliot, in the Journal of the American Association. The dose used was grain $\frac{1}{24}$, but it produced great drowsiness and entire suppression of urine. Perhaps the narceine was only impure opium.

Tea as a Cause of Sterility.—Dr. James Davies states, in the Therapeutic Gazette, that the Druidic College of the twelfth century considered tannin the most potent of all the products of nature in producing sterility, and that tea-drinking, as practiced by the public, undoubtedly acts in the same direction. *Boston Medical and Surgical Journal.*

A Welcome to Dr. W. G. Ouchterlony. Dr. W. G. Ouchterlony, who has, during the past year, been pursuing his studies in Europe, returned to Louisville on the 5th instant.

A brilliant reception in honor of the event was given on the 9th, by Prof. W. O. Roberts, at his residence, on Second Street. The house, open from 7 till 10 p. m., was thronged by the guild of the city, who heartily seconded the genial host in welcoming the talented young physician and tourist to his home and appointed place in the profession.

Sanitary Conference.—A letter from Dr. J. N. McCormack, Secretary of the State Board of Health, states: "It is the desire of this Board, if the project meets with sufficient encouragement from leading physicians and citizens, to hold a conference in your city, some time during the coming spring months, to be devoted to the sanitary condition and needs of your city; the papers and discussions to be made as practical as possible, to adapt them to the comprehension of the public, which will be invited to attend. It may be well for me to say that we are promised the cordial co-operation of the city health officer in any effort that we may make, and that an attempt will be made to secure the aid of prominent laymen, as well as physicians, in the preparation of papers and in conducting the discussions."

Philadelphia Clinical Society.—At a stated meeting of the Philadelphia Clinical Society, held January 28, 1887, the following officers were elected for the ensuing year: President, Dr. James B. Walker; First Vice-President, Dr. Mary E. Allen; Second Vice-President, Dr Susan P. Stackhouse; Treasurer, Dr. L. Brewer Hall; Recording Secretary, Dr. I. G. Heilman; Corresponding Secretary, Dr. Emma Musson: Reporting Secretary, Dr. Mary Willits; Counselors, Dr. Edward R. Stone, Dr. Edward E. Montgomery, Dr. Amy S. Barton, Dr. A. Victoria Scott, Dr. Hannah T. Croasdale.

Editors American Practitioner and News:

Placenta Previa.—In July, 1885, the undersigned sent a circular letter to the profession of Kentucky, requesting a report, from each member, of such cases of placenta previa as he may have met with in practice. A large number of physicians have made reply, and thus possessed the writer of an interesting series of cases. But as it is desirable that the contemplated report should embrace a range of cases sufficient to give it high scientific worth, the writer will take it as a special favor if the physicians of not only Kentucky, but of all States and territories, who have had one or more cases, will send reports to the following address at their earliest convenience. A printed blank to facilitate the desired report will be furnished on application.

Robert N. Taylor, M. D.
Tollesboro, Ky.

Sir Andrew Clark.—In announcing a public testimonial to this eminent physician the London Lancet says: "Sir Andrew is no a mere physician or teacher of medicine. H is, more than any other consultant, a publi man, who, with marvelously little considera tion for his own convenience, meets the publi for the discussion of current questions in whicl is special knowledge and experience may be f use; and on such occasions he is ready to ake as well as give. He has an ear for pubic opinion as well as an opinion of his own, vhich he expresses with equal lucidity and coniction. His form and speech are among our amiliar impressions, and his medical dogmas re tempered with a humane element which nakes them more effective and acceptable."

THE DANGERS OF A MILK DIET.—That nilk is not always a good thing for adults is vell known; but it seems that an exclusive nilk diet may even bring on dilatation of the tomach, emaciation, and many other distressng symptoms. A patient illustrating this fact was recently shown by M. Debove at the Société Médicale des Hôpitaux. The man had had lcoholic gastritis, and lost thirty six pounds under a milk diet.—*New York Medical Record.*

HONORS FOR AMERICAN DOCTORS.—At the recent Centennial Celebration of the College of Physicians of Philadelphia, the President conferred the honor of Associate Fellowship upon he following gentlemen:

Henry Pickering Bowditch, M. D., and David Williams Cheevers. M. D., of Boston; William H. Draper, M. D., of New York; Robert Palmer Howard, M. D., of Montreal; Hunter McGuire, M.D., of Richmond; George Cheyne Shattuck, M. D., LL. D., of Boston; Nicholas Senn, M.D., of Milwaukee; Theodore Gaillard Thomas, M.D., of New York; David W. Yandell, M. D., of Louisville; James T. Whittaker, M. D., of Cincinnati.

SCHOOL HYGIENE IN AUSTRALIA.—In Australia the subject of school hygiene has received proper attention in the State schools for some years. The teachers are particularly instructed o be careful about the spread of infectious diseases, and the public health law is stringent enough to secure the exclusion of scholars and eachers from houses in which communicable diseases exist. In the State schools of Victoria, since 1879, a system of object lessons has been given with a view of imparting elementary instruction bearing upon the health of the people. These lessons generally include such subjects as food, lothing, ventilation, cleanliness, and the prevention of infectious diseases. There have also been given at stated times lessons for the treatment of snake-bite, for the resuscitation of the drowned, and for the first aid to the injured. The department of education requires some elementary knowledge on the part of teachers upon the subjects of sanitation and physiology, wisely substituting in this connection the term sanitation for that older and less comprehensive word, hygiene.—*Sanitary News.*

DEATH FROM THE ASPIRATION NEEDLE.—Dr. J. C. Reeve, of Dayton, Ohio, records a case of death from shock following the use of an aspirator needle. The patient had abscess of the liver. The needle was introduced three inches in depth at a point two inches below the costal cartilages, and one inch to the right of median line, the direction of its course being upward and backward. It punctured the liver but failed to reach the abscess, which occupied the right lobe. No anesthetic was used, and the patient was dead in ninety seconds after the operation. The heart was normal, and death was due to simple inhibition of its action.—*Maryland Medical Journal.*

CHOLERA IN EUROPE.—The recurrence of cholera in fresh localities in Eastern and Central Europe is the most striking feature of the present phase of this year's epidemic. Large outbreaks are hardly to be expected in Europe at this season of the year, but it is most disquieting to learn that in certain parts of Austrian and Turkish Croatia, and in some districts of Hungary, fresh places are being attacked. The disease has also taken a fresh stride in a southeastern direction, Belgrade having been attacked. According to the latest intelligence, cholera broke out in one of the infantry barracks, and between the 21st and 27th of November there had been fifty cases and ten deaths. The King of Servia, on receiving the intelligence, returned to his capital and personally visited the sick; he at the same time stimulated the authorities to take ample precautions to prevent the spread of the disease. Typhus is also prevalent in Belgrade, so that there is doubtless ample room for sanitary progress.—*London Lancet.*

POLYMASTIA WITH TEN NIPPLES.—Dr. F. S. Neugebauer, jr., reported the following case before the meeting of German Naturalists and Physicians, held in Berlin, in September, 1886:

X. X., twenty-three years, was confined for the second time, at the Lying-in Hospital in Warsaw. She had nursed her first child, born seven years before, and noticed nothing peculiar about the breasts, except some brown spots on the chest, which she regarded as mother-marks. After the second confinement she noticed, even on the second day, a disagreeable moisture and dripping under the arms. Examination showed two nipples, without areolæ, in the axillæ, and in addition, two more on each side, above and to the outside of the normal ones. When the breasts were raised, two additional ones were discovered underneath them, making ten in all. When the child nursed, milk trickled spontaneously out of the axillary nipples, but could only be pressed out of the other six.

The author asks the question, whether we have to deal with several nipples on a single gland, or with several distinct mammary glands, each with its own nipple, and inclines to the latter view.—*Boston Med. and Surg. Jour.*

PROFESSIONAL SECRECY.—The subject of the confidential nature of the information given to physicians by patients has been much discussed of late, and especially by our French brethren. One aspect of the matter has been called to our atttention by an esteemed correspondent, and that is the insertion of patients' names in clinical reports read before medical meetings, or published in the journals. All this is quite unnecessary to a perfect understanding of the features of the case, from a scientific point of view, and in some instances it would doubtless be construed as a violation of the legal obligation of secrecy imposed upon physicians. It is not alone the publication of patients' names that is objectionable, but that of other particulars that might easily lead to a recognition of their identity. We quite agree with our correspondent when he says: "While some people may be indifferent as to their private affairs becoming known to the world, I beg leave to suggest that particulars which open the way to recognition of personality be omitted from reports of disease made by physicians."—*New York Medical Journal.*

REGULATING PROSTITUTION.—Fournier asked 873 male syphilitics how they became infected. It was found that 625 got the disease from registered, licensed, and regularly examined prostitutes, 100 from working women, 24 from domestics, 24 from married women, 46 from clandestine prostitutes. The inquiry showed that the licensed prostitute was the most serious source of infection.—*N. Y. Med. Record.*

DEATH OF A NIECE OF HARVEY.—Dr. W. H. Allchin writes the following to the London Lancet:

In the obituary column of to-day's newspapers is recorded an event which is suggestive of interest to our profession. "On the 1st instant at Upp Hall, Braughing, Mrs. Towers, in the ninety-eighth year of her age, the last surviving daughter of the late Admiral Sir Eliab Harvey, of Rolls Park, Essex." In the press and hurry of our day's work the notice is likely enough to pass unheeded; but that it refers to the last of the seventh generation in direct descent from that prosperous city merchant, Eliab Harvey, of London and Chigwell Park, brother of the discoverer of the circulation of the blood, should be enough to claim a moment's attention from any one who has the slightest reverence for the past. From time to time, outside our special professional life, the public interest is awakened by the overthrow of some fresh pretender to the rightful glory of the immortal physiologist and physiciān, by the erection of a statue in his native place, by the reverent re-entombment of his remains, or by the publication in *fac simile* of the notebook in which he himself recorded his observations and his labors. But gratifying as these events may be, they lack the living breathing kinship that the above simple announcement awakens. The deceased lady was the last of nine children of Admiral Sir Eliab Harvey and Lady Louisa, daughter of Earl Nugent. Her three brothers died childless in their father's lifetime, and, in that line at least, with her the name of Harvey ends. How the gallant old admiral, who for forty years fought the battles of his country, and ended by commanding the *Téméraire* at Trafalgar, is duly set forth on the marble tablet in Hempstead Church, where he sleeps with fifty of his kindred. His birth in 1758 takes us back a century ago, and those who are curious in such matters may fill in the steps 'twixt him and his first namesake, if they consult the pedigree of the Harvey family as set forth in Wilson's History of S. Laurence Pountney, London, 1831, at page 228, and the coffin inscriptions in the Harvey vault, lately published in the *Miscellanea Genealogica et Heraldica*, volume I, series 2.

MEDICATION OF THE NERVES OF THE SPINAL CORD.—Dr. J. L. Corning, of New York, read a portion of a paper (Medical Society of the State of New York, February, 1887) in which he described the method of applying cocaine. He said that in sciatica he preferred to use a large quantity of a one-per-cent solution rather than a smaller quantity of a stronger solution.

THE ABUSE OF MEDICAL CHARITY.—It is stated that a few days since a woman, dressed in rags, applied at the Boston City Hospital for surgical treatment for a scalp wound. The customary search of her person revealed several bank-books, representing $7,100 in Boston banks, $1,000 in bonds, and about $300 in cash—all hidden among her clothing.

THE HOSPITAL SUNDAY FUND in New York City this year has already realized from the annual collection in the neighborhood of twenty-five thousand dollars, with prospects of a total exceeding that of previous years. In the Broadway Tabernacle the amount collected was $3,420.08.

AFTER-CARE FOR MENTAL CONVALESCENTS. There is especially great difficulty in the management of convalescents from mental disease, and we are glad that the proposal to provide suitable half-way houses between the asylums and the world is taking a practicable shape.—*London Lancet.*

THE Southern Medical Record says Atlanta is emphatically the Paradise of city ward physicians. Some of them manage to keep body, soul, and horse together on a salary amounting to less than a dollar a day!

THE TITLE OF DOCTOR was invented in the twelfth century, at the first establishment of the universities. William Gordenia was the first person upon whom the the title of Doctor of Medicine was bestowed. He received it from the college at Asti, in 1329.—*N. Y. Med. Times.*

SOLUBILITY OF MORPHINE IN LIME-WATER. Doubtless many physicians who have given sulphate of morphine in solution in lime-water have not settled in their minds the chemical compatibility of the mixture. Some recent experiments in the assay of morphine, by Wrampelmeiner & Meexert, show the mutual solubility of lime-water and morphine.—*Medical News.*

LADY STUDENTS IN DUBLIN.—At the recent first professional examination of the Royal College of Surgeons in Ireland, there were seventy-eight candidates. A lady student took the first place. She is now attending the wards of one of the Dublin clinical hospitals in company with the ordinary class of students.

SURGICAL AND GYNECOLOGICAL ASSOCIATION.—An association of the above character was, we learn, organized in Alabama on the 15th ultimo. We have not yet been furnished with the officers elect, etc., of the new association, the starting of which, in Alabama, is indicative of medical progress in that State.

"PNEUMATIC DIFFERENTIATION" seems likely to mean differences between manufacturers of the pneumatic cabinets. The Pneumatic Cabinet Company, of New York, announce that they will prosecute every physician using any other cabinet than the one they manufacture.

THE following terse note was recently left behind an eloping couple in one of the Hampshire hill towns: "We've eloped. Forgive us if you can; and if you can't, what will you do about it?"

The Death of Edward Livingston Youmans, M. D., in New York City, on January 18th, occurred from pulmonary tuberculosis, supervening upon a severe pneumonia of two years ago. He was born in 1821, and graduated in medicine at the University of Vermont. His name was widely known as the editor of the Popular Science Monthly, with which journal he was identified from its inception in 1871.

New Books.—There were 5,210 new books or new editions published in the United Kingdom in 1886. Of these 114 were new medical books, and 57 were new editions of medical works. Only 18 new books on law were published, while there were 616 upon theology.—*Medical Record.*

Dr. Eskridge, after a two years' residence at Colorado Springs, says, in the Maryland Medical Journal: "Dry, irritative catarrhal conditions of the upper air-passages and of the middle and external ears are made worse by residing in Colorado."

Easy Death.—A legislative committee, appointed to inquire into the merits of various devices for putting murderers to death with less repulsiveness than hanging, will report to the New York Legislature in favor of the adoption of electricity.

The Indiana Medical Journal says that of four doctors who died during the past year in Indianapolis, all are said to have worked themselves to death to make bills that were never paid, and their families were left without a competence.

During his tour in Great Britain Dr. Oliver Wendell Holmes received degrees as follows: D. C. L., Oxon.; Litt. Doc., Cantab.; LL. D., Edin., and LL. D., Dublin.

It is claimed that the atmosphere of Southern California, near the coast, during the summer is nearly aseptic.

SPECIAL NOTICES.

Bromidia (Substitution).—Chas. H. Chalkley, M. D., of Richmond, Va., writes to Battle & Co., of St. Louis:

"I have before me two samples of Bromidia, purchased from different drug stores in this city. They are apparently so different in appearance, taste, and therapeutic effect that I want you to write me which one is made by you and which is spurious.

"Sample No. 1 is reddish-brown in color, slightly opaque, and not very disagreeable to the taste. The dose of one or two drams has a decided hypnotic effect.

"Sample No. 2 is of a light greenish-brown color, perfectly transparent and intensely disagreeable to the taste, being bitter and acrid, and bearing evidence of containing no coloring matter whatever. The dose of one or two drams does not have as decided and prompt an effect as in the case of No. 1.

"Both the samples were purchased from druggists who are considered first-class in every way; but here is certainly something wrong, and I must find out where it is or quit writing for Bromidia altogether, for unless I know where my prescriptions will be filled, I am by no means certain of the effects upon my patients."

Upon receipt of this letter, Messrs. Battle & Co. sent the doctor a bottle of their Bromidia, who answered as follows:

"The bottle of Bromidia came, and satisfied me that the article (sample No. 2) I had been getting in my prescriptions was spurious and totally unlike the genuine, both in physical appearance and in therapeutical effects."

We have received a copy of the Dietetic Annual for 1887, published by Wells & Richardson Co., of Burlington, Vt. It is a pamphlet which sets forth in plain terms the merits of a Lactated Food preparation manufactured by the firm above named. Lactated food has met of late with much professional favor, and when used according to the rules laid down in the manual will do much toward saving the lives and restoring the health of sick infants and invalid adults.

Cod-liver Oil Emulsion. — The distaste which many patients have for cod-liver oil may be happily overcome by means of a well-made emulsion. Scott & Bowne, of New York, have for many years made a specialty of this preparation, the excellence of which is attested by results known to every practitioner of large experience. These manufacturers have succeeded in combining the oil with the hypophosphites, which affords the physician a palatable preparation of the highest therapeutic worth.

The Buckthorn Cordial, brought forward by the same house, is worthy of professional attention.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. III. [NEW SERIES.] LOUISVILLE, KY., MARCH 5, 1887. NO. 5.

> *Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.*—RUSKIN.

Original Articles.

UNIVERSITY OF LOUISVILLE.

The Doctorate Address Delivered at the Semi-Centennial Anniversary of the Medical Department.

BY DAVID W. YANDELL, M. D.
Professor of Surgery and Clinical Surgery in the University.

GRADUATES: The present is an occasion of exceeding interest to you, because it marks an epoch in each of your lives. It is of like interest to a much wider auditory, because it marks an epoch in the life of a great institution of learning—the University of Louisville—which uses this hour to celebrate its semi-centennial birthday.

The Trustees of the University, feeling that it would befit the time, have asked me to prepare a narrative of the institution of which you are now alumni, to tell you of its origin, career, and prospects. They thought a sketch of this kind would interest, not only you, but the friends of educational work every where. They also thought the task would be easy to one who had grown up with the institution, as I have done, and who, therefore, would naturally have at hand abundant material for illustrating the subject. In one sense this is quite true. But it so happens that the material has already been woven into a full and authentic history by hands far abler than mine—by those of my venerated father—one of the founders of the institution, and with which his name in parent and sons has been connected in almost unbroken succession from its opening term to the present time. Instead, therefore, of repeating what has been better said than I could hope to say it, I have chosen to attempt a sketch, a mere outline drawing of the men who made the history of the University rather than to reproduce the annals of the institution itself. For I hold that the history of an educational establishment, like that of mankind, is the history of its great men. "My friend," said Faust to the student, "my friend, the times which are gone are a book with seven seals; and what you call the spirit of the past ages is but the spirit of this or that worthy gentleman in whose mind those ages are reflected."

This being my purpose, my remarks may properly be styled

REMINISCENCES OF THE TEACHERS OF MEDICINE IN THE UNIVERSITY OF LOUISVILLE.

In order, however, that you may the more readily catch the thread of what I have undertaken to say, I must first tell you some things connected with the origin of the University. I shall be very brief and shall try not to weary you.

The first medical school west of the Blue Ridge was established at Lexington, Kentucky, in 1817, under the name of the Medical Department of Transylvania University. Its first faculty held together for but a single session. Two years later a new organization was effected, composed of learned and zealous men under whose direction the school reached a success at that time unparalleled in the history of such institutions. When Transylvania was founded, Lexington, besides sitting in a region of marvelous fertility, was the literary and commercial emporium of the Western States. It was the one city in the West which, at the time, possessed the needed facilities for giving a medical education. But Lexington had no hospital, and her small population afforded but little anatomical material.

The system of teaching medicine under which Transylvania had achieved her unexampled success was undergoing silent but rapid change. The profession and the public felt that the student should be taught less by ear and more by eye and by hand. Subjects for clinical instruction and subjects for dissection had become essentials in the curriculum. These Lexington could not supply. The faculty, quick to discern the requirements of the times, determined to remove the institution to a larger city. Louisville was at once settled on as a place possessing every facility for a medical school. A charter for one, under the name of the Louisville Medical Institute, was already in existence. The citizens of Lexington and the Trustees of Transylvania refused to ratify the proposed transfer. A dissolution of the faculty followed. Four of its members clung to Transylvania. The remaining three—Dr. Caldwell, Dr. Cooke, and Dr. Yandell—came to Louisville. They were offered places in the Medical Institute, and accepted them. They immediately busied themselves in the effort to found a school with medical and law departments attached. The people, headed by Mr. James Guthrie, the leading citizen of Louisville, took the matter in hand. A public meeting was called. The mayor and council were asked to endow at once the medical department. An entire square of ground was given, and fifty thousand dollars appropriated for the purchase of an outfit. A faculty was appointed. This was in 1837. Dr. Caldwell, Dr. Cooke, and Dr. Yandell were given the chairs they had respectively filled in Transylvania, namely, "Institutes of Medicine," "Theory and Practice," and "Chemistry." To Dr. Miller, of Louisville, was assigned the chair of Obstetrics, to Dr. Cobb that of Anatomy, to Dr. Flint that of Surgery, while Dr. Yandell filled the chairs of Materia Medica and Chemistry.

The first course of lectures in the Medical Institute was delivered in a building which occupied the site of the present structure.

On the 22d of February, 1838, the cornerstone of the University was laid by the Ancient Order of Masons in the presence of a great concourse of citizens. The ceremonies were enlivened by music and made impressive by orations setting forth the importance of the event. I stood, as a boy, an interested spectator by the side of those who came to establish a medical school here.

"When," as was so poetically said by the author of the history which I have so freely used, "when the dome which crowned the edifice was completed, it was the last reared in honor of medicine upon which the sun shone in his journey down the evening sky, the first to greet the traveler coming from the far West."

[I am speaking of a period when knee-breeches, queues, and gold-headed canes had gone out of fashion, but when tall black stocks and large white neckerchiefs, ruffled shirts with a wonderful show of collar, and black dress-coats were in general use, and constituted the regulation dress of the professor when he appeared before his class.]

The central figure of that group of noted teachers who founded the University was Charles Caldwell. He was a massive man in body and in mind. He was both tall and broad. His carriage was erect. His head was simply grand, his mouth was large, his eyes were bluish gray. He had studied elocution. His gestures and his speech were studied also. His manners, usually cold, were always stately. He spoke in long, well-rounded periods, and in a great sonorous voice. He was learned in the languages, fond of study, and of abstemious habits. Besides all this he was a man of affairs, and delighted in controversy. He taught the physiology of his day, which was largely the physiology of the ancients, but he taught it in so impressive a manner that his classes received it as gospel and voted him its greatest expounder.

Beside him stood John Esten Cooke, a simple man in all his ways. He was of medium stature, with a face much like that represented in the portraits of Sydenham. He had brought himself prominently before the public by his "Pathology and Therapeutics," a work which advanced peculiar theories and advocated a heroic practice. His pathology resembled in some of its main features that of Mr. Abernethy. He taught that the liver was the principal seat of all constitutional diseases. Mr. Abernethy taught that all local diseases had a constitutional origin. The British surgeon was no more tenacious of his theories than was the physician in the "backwoods" of the West. Nor did he have more followers. The doctrines of each were so readily comprehended, so easily applied, and saved such an amount of study and observation to their pupils that their pupils at once adopted them. Mr. Abernethy is said to have reserved in his lectures all his enthusiasm for his own peculiar doctrine, and so reasoned it, and so acted it, and so dramatized it, and so disported himself with ridicule of every system but his own, that his hearers accepted the dictum in all its fullness. Dr. Cooke had enthusiasm, but neither dramatic power nor any turn for ridicule. He was near-sighted, and wore glasses. His voice was feeble, his articulation hesitating and labored. He used but few gestures, and those were awkward. And yet he maintained his doctrine with such earnestness and by a compactness and force of logic so great that, in spite of its growing unpopularity, he carried conviction to the mind of every pupil. Mr. Abernethy's pathology and practice were simple indeed. Dr. Cooke's pathology and practice were simpler still. "All local diseases are of constitutional origin, and the remedies proper for their cure lie in the small compass of a blue pill at night and black draught in the morning," thundered Mr. Abernethy from his desk in London. Dr. Cooke, reading from his desk in Louisville, saw in bile, yellow bile, and black bile, the hands on the dial-plate of disease which pointed unerringly to the one and only treatment. The three biles constituted his medical trinity, and appealing to this he compressed his means of cure into one drug, and that drug was calomel. This he gave in huge doses, by day and by night, in season and out of season, first, last, and all the time.

But a pathology so narrow could not long survive, and a practice which trusted the awful issues of life and death to a single agent failed to satisfy the growing intelligence of the people. Physicians at large assailed the pathology. The public rejected the practice. And, as extremes do so often meet, there grew up with this opposition, and, indeed, out of it, a sect which condemned as poisons all medicines derived from the mineral world, and found in the vegetable kingdom alone their remedial agents. This sect called itself Eclectic. It was founded by a man named Thomson, a person of much mother-wit, great shrewdness, and but little knowledge. For a time it held large sway throughout the country. The sovereign metal of Dr. Cooke was driven from the field by steam, lobelia, and number six. But if it were permitted this ingenuous, original man to look down on the practice of to-day, he would have the satisfaction of seeing the remedy on which he rested all his hopes come out from the eclipse which temporarily obscured it. His pathology, essentially bad, naturally perished. The remedy he advocated, essentially good, necessarily survived, and under wiser restrictions, a more correct pathology, and enlightened interpretation of its action, is at present in more general use than at any previous time in the history of the world. Eclecticism, too, has perished; another proof that "what is useful will last, what is useless will sink."

The remaining member of the trio from Transylvania was Dr. L. P. Yandell, younger than either of his colleagues. He was tall, erect, slender. His skin was dark. His eyes, full of expression, were black, and set far under a broad forehead. His mouth, denoting great strength of character, was large; his lips were thin, and his chin broad and well rounded. His voice was pleasing in a marked degree. His gestures, always fitted to the sense of his discourse, were exceedingly graceful. He was a rhetorician. He had a wonderful faculty for focusing facts. As a teacher he was clearness itself. His was an imaginative mind, richly stored with multifarious knowledge. He was extremely popular with his classes, each student looking upon him as a personal friend. He knew every member of the class by name, and almost on the instant of entering the lecture-room would detect the absence of a pupil from his accustomed seat. He was a ready and scholarly writer and of surpassing eloquence as a lecturer. His favorite collateral study was paleontology. The Falls of the Ohio furnished him a rich and unexplored field for its pursuit. He spent much of his time in tracing the footprints of the dwellers in the earlier waters on the earth, and enriched the knowledge of this beautiful branch of science by numerous and valuable original contributions. Ardent in admiration of whatever was noble, he was sympathetic with whatever was good and gentle. With all the drawbacks inseparable from a feeble constitution, he filled a large measure of usefulness during a long life, which he lived throughout as an humble, active Christian.

These men were pioneers in their work, "benefactors of their profession and their race, and as such their names will live in the memories of men." They bore still farther into the frontier the light of our beneficent science. They builded wisely, and their work which they so much loved endures.

The University found Dr. Henry Miller here, a rising practitioner and ambitious to teach. He had already occupied a chair in the Medical Institute. He was of medium height and inclined to be stout. He had light hair, a florid skin, blue eyes, a small mouth, and a very large nose. He was slow of speech, slower of gait. His voice was loud enough, but his utterance was thick and indistinct. Of gestures he had none. But he was a solid man, through and through. His slowness of speech made it possible to catch every word he uttered, while his selection of words could with difficulty have been bettered. At the beginning of the course his lectures seemed tedious; but as the session advanced the students became more and more interested, and before commencement day he had won the respect of his hearers by reason of his terseness of speech, and their admiration by reason of his brain power. Early in his teaching career he prepared a work on Human Parturition, which was at once accorded a place second to none on that important subject.

Dr. Jedediah Cobb, of New England birth and training, who had already made reputation as a teacher of anatomy in the Ohio Medical College, was induced to cast his lot with the Louisville enterprise. He was a tall and shapely man and very graceful. His voice was clear as a bell, and his large, lustrous black eyes added much to its effect. He stripped the intricate points in anatomy of their obscurity and lodged them in the mind of even the dullest of his hearers. He was Dean of the Faculty during his entire connection with the school. He had great suavity of manner, and was a prime favorite with the students.

Dr. J. B. Flint, the occupant of the Chair of Surgery, has been a resident of Boston. He was a graduate of Harvard, and had early shown a turn for surgical work. He proved to be a practical surgeon of real ability. He was a learned and amiable man, and a quick and graceful operator. In body he was short and slight, weighing little over one hundred pounds. His voice was thin and of low pitch, while his utterance was indistinct to a degree that made it unintelligible beyond the first two rows of benches. He acquired a large practice, and made many friends, but never gained popularity as a teacher.

During the summer of 1838 the organization of the Institute was completed by the introduction of Dr. Charles W. Short, who was made Professor of Materia Medica, the chair he had held in Transylvania. Dr. Short was a most valuable officer. "His high scientific attainments, the soundness of his judgment, his dignity and urbanity of manners, his amiable temper, and blameless life, added character and weight to the institution." Botany was his favorite pursuit. He found the flora of this region virgin and unknown, and so collected, arranged, and classified it that his successors in this field have been able to change nothing and to add but little to his work. He was an instructive but not an interesting lecturer. He never looked at his audience, but, fixing his fine blue eyes on some far and elevated point in the room, and rising and falling on his toes and heels, delivered his carefully prepared prelections.

In the spring of 1839 the Cincinnati Medical College, a young but powerful rival of the Medical Institute, closed its doors. Dr. Drake was its founder and one of its chief ornaments. The faculty of the Institute, following the line of policy which led them to abandon Lexington, asked the Board of Trustees to create an eighth chair, entitled Clinical Medicine and Pathological Anatomy, and tender it to Dr. Drake. The matter was accomplished, and Dr. Drake came to Louisville.

As a lecturer Dr. Drake had few equals. He was never dull. His was an alert and masculine mind. His words were full of vitality. His manner was earnest and impressive. His eloquence was fervid. While connected with the University he composed his work upon the Principal Diseases of the Interior Valley of North America, a work which, comprehensive in scope, philosophic in spirit, and abounding in graphic pictures of disease, will remain a storehouse of knowledge and a monument to the originality of its gifted and versatile author. He said to the speaker when he was about to enter on the practice of his profession: "I have never seen a great and permanent practice the foundations of which were not laid in the hearts of the poor. Therefore, cultivate the poor. If you need another though a sordid reason, the poor of to-day are the rich of to morrow in this country. The poor will be the most grateful of all your patients. Lend an ear to all their calls."

At the close of the session marked by Dr. Drake's introduction into the University, Dr. Flint retired from the school. The faculty, true to its guiding purpose, secured the appointment of Dr. Samuel D. Gross to the chair of Surgery.

Dr. Gross had achieved success as a teacher in the Cincinnati Medical College. He had won his spurs as an author by the preparation of a volume on Pathological Anatomy, the first original work on that subject composed by an American. He came to Louisville young, vigorous, brimful of enthusiasm, bent upon the noble end of lessening human suffering and lengthening human life. Here he prepared an original monograph on Wounds of the Intestines, which contained the seminal thought of the most advanced practice in this branch of surgery to-day. Here he brought out a volume on Diseases of the Bladder, which was every where recognized as the ablest treatise on that interesting class of affections. And here he gathered much of the material for his System of Surgery, completed at a later day, which was at once assigned a place among the classics, and is read in different tongues wherever medicine is practiced. Cecil said of Sir Walter Raleigh, "I know that he can toil terribly." Dr. Gross "toiled terribly." He was never idle.

During the first three sessions of the school clinical medicine was taught by Professor Caldwell, and clinical surgery by Professor Flint. The students at that time "walked the hospital" with their teachers, who instructed them at the bedside. But the class had grown too large for this, and in order to augment the efficiency of this important branch of medical teaching, the faculty, with the consent of the City Council, had erected, at their own expense, a clinical theater adjoining the City Hospital.

Drs. Drake and Gross succeeded Drs. Caldwell and Flint as clinical teachers. Dr. Drake was greater as a didactic than as a clinical lecturer. He was a grand expounder of the principles of his art, seeing things with great eyes and in large relations, but when he came to apply these in practice he did not appear to such advantage. Dr. Gross, on the other hand, while making every case illustrate some principle in surgery, descended to the minutest details of bedside practice.

The popularity of the school grew apace. It was now confessedly ahead of all the neighboring schools, and probably behind none, except the two principal schools in Philadelphia. "In 1847, ten years from the commencement of the enterprise, I suppose I am safe in saying," continues the historian, "that no medical school ever attracted so many students in so short a time."

Two years later, that is, in February, 1849, Dr. Drake returned to Cincinnati, and Dr. Caldwell and Dr. Short vacated the chairs they held. "These eminent teachers were succeeded by Dr. Elisha Bartlett, Dr. Lewis Rogers, and Dr. Benjamin Silliman, jr. The latter took the chair of Chemistry, Dr. Yandell being assigned to the department of Physiology and Pathological Anatomy. The influence of so extensive a revolution was feared by some, but the sequel proved that the institution had become sufficiently established in the confidence of the public to bear the change without loss."

Late in the summer of 1850 Dr. Gross and Dr. Bartlett resigned their places, and accepted chairs in the University of New York. Dr.

Gross was succeeded by Dr. Paul F. Eve, of the Georgia Medical College. Dr. Drake again left Cincinnati, and was reappointed to his former position.

Dr. Bartlett was of small stature and of feeble health. He had a pale and thoughtful face, a gentle voice, and charming manners. He was of exquisite perception. As a clinical teacher he had no superior. I had the honor to be selected by him as his assistant in clinical work. In his opening lecture at the hospital he said, "Gentlemen, sickness is in one sense a very solemn thing. A hospital is a place where only dependent and homeless people come to seek succor at the hands of the physician. If you are to make physicians worthy of the name, suffering will always command your sympathy. You will be shown here disease in all its phases and the manifold suffering which it entails. It is expected that you will study each individual case; study its symptoms, study the practice advised, study the pathological changes wrought by disease in the various organs of the body. But in all your studies here, I beg you, study to be quiet."

Dr. Rogers was a man of frail and slender body, tall and thin. He, too, had a pale and thoughtful face. He taught with much earnestness and force, and his large experience as a practitioner lent exceeding weight to all his words.

Dr. Silliman came from Yale with a fine reputation both as author and teacher. He was a stout man, with blue eyes, fair skin, and handsome face. He spent almost his entire time in the laboratory, and made his every lecture a carefully prepared discourse.

Dr. Eve was a large and very tall man, who lectured with great fire. He was a brilliant operator, and a master in the field of practical surgery.

Dr. Gross yearned, he said, from the day that he reached New York, for his Kentucky home, and returned to it after giving a single course of lectures. Dr. Eve generously relinquished a place to which he felt his friend had stronger claims, and accepted a chair in the medical school at Nashville.

Dr. Drake now abandoned the University for the third time, and persuaded his colleague, Dr. Cobb, to accompany him to Cincinnati, where they took positions in the Ohio Medical College.

Dr. Austin Flint and Dr. Benj. R. Palmer were appointed to succeed these two gentlemen. Dr. Flint is known by name to medical men every where. While here he composed his Report on Continued Fevers, a work which reflected honor upon the professional literature of our country, and formed the basis of his unequaled volume on the Practice of Medicine, which at this moment is in the library of every reading physician in America. Dr. Flint was strong in didactic teaching, but it was in the wards of the hospital that he appeared at his best. Kind, patient, and gentle with the sick, he read their diseases with consummate skill, and expounded them to his class with masterly ability. He was a sage; and the Chinese Mencius said, "A sage is the instructor of a hundred ages."

Dr. Palmer was a man of medium size, large mouth, and noble head. He had a ringing voice. His descriptive powers were not surpassed by those of any man I have ever known. He made the dry structures of the human frame to live again, and so portrayed the living structures that under his picturesque treatment they assumed unwonted interest. He created a love for anatomy in the minds of all who listened to his lectures. He knew well how to subordinate the lesser to the greater facts of his subject. He and Denonvilliers were the best lecturers on anatomy it was ever my fortune to hear. With a great knowledge of surgery, he blended his surgical thought with his anatomical facts in a manner that the student could not forget.

In 1854 Professor Silliman resigned, and Dr. J. Lawrence Smith, of South Carolina, was elected to the chair of Chemistry. Dr. Smith was a scientist from the sheer love of science, full of learning, and a prestidigitator with apparatus. He was distinguished for his originality of thought and work. Few men have done more for science, pure and simple, in America than he, and perhaps none have received for it more general recognition, both at home and abroad.

Graduates, no one knows just so well as I do that these are indeed crude portraitures, but they are none the less those of gracious men, "and gracious men are public treasures and storehouses wherein every man hath a share." We, their successors, have caught none of their grace nor inherited aught of their glory, but standing upon their shoulders, it may be permitted us to believe that we do see farther than they saw, just as those who shall succeed us will see farther than we now see.

There were other distinguished men than those I have named who taught in the University, but I have time to repeat their names only:

Dr. R. J. Breckinridge, brilliant and persuasive, taught materia medica. Dr. J. W. Benson, accurate and forcible, taught anatomy. Dr. Llewellyn Powell, dignified, systematic, instructive, taught obstetrics. Dr. John E. Crowe, quiet, reserved, weighty, taught obstetrics also. Dr. G. W. Bayless, sturdy and earnest, taught surgery. Dr. R. O. Cowling, genial, broad, and of fine quality all round, succeeded Dr. Bayless. Dr. H. M. Bullitt, clear and comprehensive, taught physiology. Dr. S. M. Bemiss, solid and strong, taught pathological anatomy and clinical medicine. Dr. L. P. Yandell, jr., sound of head and sweet of heart, taught clinical medicine. Dr. T. S. Bell, who realized Lord Brougham's saying, "Know something about every thing, and every thing about something," taught the theory and practice of medicine.

Not one of these men is living to day. Some were gathered like shocks of corn fully ripe; some were taken when in their prime; others were called away "while the dew of youth was still fresh upon them." Each did in his appointed time, and in his way, the work allotted him.

When the University of Louisville was established it was the fourth medical school founded west of the Alleghanies. There are as many schools now in Louisville alone as were then in all the territory which extended from the Ohio River to the Pacific Ocean. There are almost as many schools now in this region as the University counts years in her age, and yet, with such active competition immediately at her doors, and throughout the territory from which she draws her classes, she maintains her position and continues unobtrusively to strive to do her duty.

The thought which led to the founding of the University, that of enlarged instruction in clinical medicine and practical anatomy, has governed it throughout its entire career. It has cultivated and developed, widened and increased her means for teaching these subjects. Those who have guided the fortunes of the institution have steadily labored to align it with whatever is best and most advanced in teaching. It lays claim to being a school where practical medicine is taught in all its branches, in a thorough, practical way. It is believed to have wrought well, to have done honest work in an honest way, and to deserve well of the profession and of the public. It points to its record with becoming pride, and finds there its guerdon and its hope for the future.

If the wealth of a nation resides in its sons, surely the renown of a university resides in its pupils. Tried by this standard, the University of Louisville is deservedly renowned. It has had many pupils, and they have won much distinction. Its teachers, and those they have taught, have filled chairs in many of the leading schools both North and South, East and West. New York and Philadelphia have made large drafts from this material. New Orleans, Nashville, and other places have profited themselves in a like way. Thousands upon thousands of her sons, who have not reached the particular distinction referred to, have none the less gained renown by their every-day work, and earned the gratitude of millions of their fellow men by their skill, their kindness, and their courage.

Universities of learning have larger uses than the mere scholastic instruction that they give. They are humanizing agents. Their influence, though silent, is none the less marked for good. They elevate thought. They disseminate knowledge. They develop the good, and repress and supplant the bad in those who resort to them. They set in motion the concentric circles of taste and culture, which widen with the sun. They adorn the cities which foster them. They bless those who look on them.

Graduates, my concluding words will be very few. I feel that I can not point you to better examples of true physicians than are to be found among those whose names have been identified with the University of Louisville. Contemplating them, your minds can not fail to be tuned to a higher and nobler key. These men rest now in the Silences, but their work abides. Of all those who knew them, I do not believe there is one who does not feel a deep and abiding thankfulness that they lived and wrought where they did and as they did. Animated by their deeds, it is expected that each of you will, in his way, do the work that falls to his hands, and do it well. Gentlemen, good-bye.

REPORT OF A CASE OF ANEURISM OF THE POPLITEAL ARTERY.*

BY W. O. ROBERTS, M. D.

Professor of the Principles and Practice of Surgery in the University of Louisville.

December 16th I saw, in consultation with Dr. Carter, Mr. G., aged twenty-two years, a laborer, who had a large tumor in the right popliteal space. The patient gave the following history of the case: While not robust, he had enjoyed fair health until the appearance of the present trouble. He drank but little, had never been drunk, had never had venereal disease, and knew nothing of his family history. On November 10th, while standing on the street, with his right foot resting on a small box, he was suddenly seized with a violent pain in the popliteal space, followed by numbness in the leg, and for several minutes he was unable to straighten the limb. The pain and numbness lasted for several hours, wearing off gradually, but the limb continued to feel weak, and he had frequently cramps in the calf of the leg. Two weeks after the pain first occurred he noticed in the popliteal space a lump about the size of a partridge-egg, which steadily increased in size, while the leg grew weaker and the cramps more severe. Three weeks prior to my visit the tumor had reached the size of a duck's egg, and was so painful and tender that the patient was driven to bed. Thinking it an abscess, he had made warm applications to it, and the day before I saw him he called in Dr. Carter to lance it. Dr. C. recognized it to be an aneurism, and advised that he have a surgeon to take charge of his case, and I was selected.

The tumor now filled the popliteal space, and bulged considerably inward. It had reached the size of a small cocoanut. It was exceedingly tender to the touch and quite hard. The pulsation and aneurismal bruit were very distinct. The leg was flexed almost to a right angle, and any attempt at moving the limb gave much pain. The anterior aspect of the knee was normal. There was slight edema of the foot and leg, with some pitting on pressure immediately over the tumor, and the surface here felt warmer than the leg below. The patient seemed to be in continual pain, as shown by the expression of his countenance. His general condition was bad. Emaciation marked; pulse 120, and feeble; tongue heavily coated; no appetite. Patient was exceedingly nervous, and slept only when under the influence of morphine. Auscultation revealed valvular disease of the heart.

The Hunterian operation was advised as offering a chance of saving the limb. The bowels having been emptied by a mercurial, on the following day the operation was done in the amphitheater of the University, in the presence of the class, with Drs. Cottell, Rodman, and Pearce to assist me. I ligated the femoral artery in Hunter's canal, using a large catgut ligature. No means were taken to control the circulation during the operation. The artery where tied seemed to be rather undersize. Its pulsation was quite feeble, which was ascribed to the patient's weak condition. The ligature was cut short, the wound closed with gut sutures, and a few strands of the catgut were introduced through its lower end to provide for drainage. The entire limb, including the foot, was then enveloped thickly in cotton batting, over which was loosely applied a roller bandage, a strip of pasteboard being confined on either side of the limb to prevent motion at the knee. Not more than a teaspoonful of blood was lost during the operation.

Upon coming from under the influence of

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*Read before the Louisville Medico-Chirurgical Society, February 11, 1887. For discussion see page 138.

the chloroform, the patient complained of an intense pain in the instep of the foot, which was relieved by one fourth of a grain of morphine given hypodermically. The morphine had to be repeated every six hours for two days, when it was discontinued, as the pain had become so slight as not to require it, and the patient slept well without it.

The dressing was not disturbed for seven days. Upon its removal the wound was found healed, excepting at its lower end, where the catgut threads had been inserted. This closed in a few days, and the patient made an uninterrupted recovery. The temperature rose above normal only once; that was on the second day, when it reached 101° Fahr. Upon removal of the first dressing all tenderness over the tumor had disappeared, and there was quite a perceptible diminution in the size of the growth, which was now very solid, with absence of both pulsation and bruit. Patient was kept in bed for four weeks, at the end of which time his general health was immensely improved, in fact he expressed himself as feeling as well as ever. The tumor had diminished about one third in size, and was quite solid, with no return of either pulsation or bruit. Motion at the knee was fair, but there was inability to either completely extend or flex the leg.

I have failed to see the patient since the end of the fifth week following the operation, but am told by his physician that his improvement has been steady, and that he is now walking about with the aid of a cane, a flannel roller still being worn on the leg. The operation was done under strict antiseptic precautions.

The history of this case would seem to justify the opinion that the aneurism was due to the lodgment of an embolus in the vessel.

LOUISVILLE.

DURING the past year Montreal had the largest death roll from preventable disease ever seen in modern times, so says the Canada Medical Journal.

HIPPOCRATES said that four qualities are inindispensable to a good physician, viz: learning, sagacity, humanity, and probity.

A FOREIGN BODY IN THE NASAL CAVITY[*]—REMOVAL.

BY J. A. STUCKY, M. D.
President of the American Rhinological Association.

A. W., of West Virginia, aged twenty-three, applied to me on November 20, 1886, to have a foreign body removed from the right nasal cavity. He complained at the time of pain in the right cheek and eye, and the parts were swollen and very sensitive.

He gave the following history: Five months ago, while picking his nose with a common hair-pin, he pushed it so far into the cavity that he lost control of it, and could not remove it. He consulted a physician, who made several attempts to remove it, but, failing to do so, prescribed an ointment, and told him to return the following day when he would be better prepared to remove it. On the next day he was feeling no discomfort from its presence, and the attempts to remove it the day before having caused so much pain, he concluded to allow it to remain. He suffered no inconvenience from its presence until a day or two previous to consulting me, when he thought it had moved upward toward his eye and backward in his throat; it interfered with his breathing and he felt as if there was something pressing on the upper part of his throat. An anterior rhinoscopic examination revealed complete stenosis of the right nasal cavity, caused by swelling of the tissues covering the septum and middle and

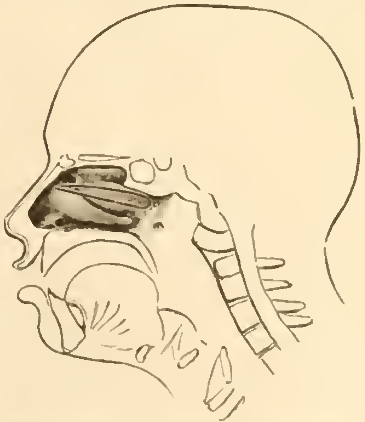

FIG. 1. THE POSITION OF THE PIN IN THE NASAL CAVITY.

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[*] Read by request at Louisville Medical and Chirurgical Society, February 25, 1887.

inferior turbinated bones. No foreign body could be seen. A posterior rhinoscopic examination revealed swelling of the turbinated bodies, especially the middle and superior, but not sufficient to occlude the opening. The presence of the foreign body was not detected by this examination.

Dr. O. F. Brown examined the patient, but failed to detect the foreign body. The patient insisted that the hair-pin was still in his nose.

The anterior nares were sprayed with a ten-per-cent solution of cocaine. This reduced the swelling of the parts, and a membranous occlusion of the middle and superior meatus was discovered. The occlusion extended from the upper border of the inferior turbinated bone. The inferior meatus was patulous. The occlusion, we inferred, was due to adhesive inflammation caused by injury to the tissues of the septum and turbinated process in the first attempt to remove the pin.

The occluding membrane was divided with nasal scalpel, and cocaine thoroughly applied both anteriorly and posteriorly. A nasal probe was carefully inserted into the anterior nares, and a search was made for the foreign body. It was detected (by the probe) in the superior portion of the nasal cavity. The writer's probe-pointed nasal forceps were introduced and the foreign body seized. Efforts to remove it through the anterior nares were unsuccessful. Traction did not move the body, and caused the patient intense pain. The question then arose as to the best method of removing the body. It was obviously impossible to remove it anteriorly, as the spreading points of the pin were in that direction, and if one end was pulled upon the other would act as the barb of a harpoon. If force sufficient to remove it through the anterior nares was used, laceration of the soft parts and perhaps of the turbinated bones would have been the result. On the other hand, it was doubtful if so long an object as a hair-pin could be removed through so short a space between the posterior nares and posterior wall of the pharynx. The latter seemed the safer plan, and we decided to push the pin back into the pharyngeal vault and remove it through the mouth. The forceps were again introduced and the pin firmly grasped and pushed backward almost an inch. On making a posterior rhinoscopic examination the blunt (or curved) end of the hair-pin could be plainly seen imbedded in the tissues covering the roof of the pharyngeal vault. The post-nasal forceps were now introduced, and, guided by the rhinoscopic mirror, the pin was seized and removed through the mouth. The soft parts were considerably torn, but not as much as was expected. The hemorrhage was trifling and easily controlled by styptic spray. The patient suffered no inconvenience from the operation.

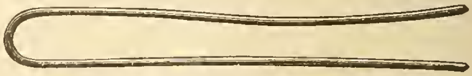
FIG. 2. THE HAIR-PIN—EXACT SIZE.

The pin was an ordinary iron hair-pin, such as is usually worn by ladies, and was two inches in length.

LEXINGTON, KY.

Societies.

LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting February 11, 1887, President H. A. Cottell, M. D., in the chair.

Dr. Rodman reported a case of fracture of the olecranon process of the ulna in a boy eleven years old, caused by a fall on the point of the elbow. The arm was dressed with an anterior splint, very slightly flexed after the third day, the part having been kept in hot water up to that time on account of the inflammation and swelling. Splint was removed and passive motion begun on the tenth day. The result is perfect use of the arm in every way.

Dr. Godfrey said that he had had, some months ago, a case of fracture of the olecranon, in which there was also very slight displacement, not exceeding half an inch, though the other features were well marked. The fracture was treated in the manner described by Dr. Rodman, by Hamilton's method. He thought fractures of the olecranon with so little displacement were unusual. He has not seen, but has since heard from the patient, who has good use of the arm.

In answer to Dr. Godfrey, Dr. R. said there was not much separation of the fragments. The fracture was above the insertion of the triceps tendon, and when this is the case there is but little separation of the fragments.

Dr. W. O. Roberts reported a case of aneurism of the popliteal artery. (See page 136.)

Dr. Vance thought any slight stretching or pinching of an artery would not cause aneurism, for in operations for correction of deformities in the lower limbs healthy arteries are often stretched to a marked degree without injury. The same thing occurs also in dislocations, without any harm coming to the artery. It is not easy to see, then, how the normal movements of the knee-joint could produce aneurism in the popliteal artery. Disease of the arteries is at the bottom of most of these cases.

Dr. von Donhoff had seen, some years since, in the person of a rosy-cheeked but strumous boy, not above ten years of age, a popliteal aneurism which resulted from a fall. It was probably, from its abrupt appearance, of the variety of *aneurisma spurium*. He does not believe that disease of the heart is primarily concerned in the production of aneurism, but that it is merely a part of the general pathological condition favoring such formation. *Aneurisma verum* begins, as a rule, in a symmetrical (spindle-shaped) expansion of the artery, and is apt to be associated with a more prolonged history. Does not believe that an embolus is likely *per se* to induce aneurism, but that when this factor is traceable a condition of the arteries favoring the appearance of aneurism is primarily causative. Atheroma, attributable to rheumatism, gout, strumous habit, and exposure associated with alcoholic excess, is the true etiological factor, except in cases of traumatic aneurisms, where no predisposing conditions exist. In the great majority of cases there are precedent pathological alterations of the tissue of the arteries.

Closing the discussion, Dr. Roberts said: In my investigation of embolism as a precursor of aneurism, I find great unanimity of opinion in writers on surgical pathology, and "statistics point very strongly to its being the most common if not the sole cause of spontaneous aneurism in young subjects." (Erichsen.)

Mr. R. W. Parker, in a paper on aneurisms in young subjects, read before the Medico-Chirurgical Society of London, in 1883, states that of fifteen recorded cases there was valvular disease of the heart in eight; in five the state of the heart was not recorded; in two only was it healthy.

The Hunterian operation is undoubtedly followed by the greatest number of cures, and one of its greatest dangers, secondary hemorrhage, is almost entirely done away with by the introduction of the animal ligature.

Reviews and Bibliography.

Notes upon New Remedies: A concise Statement of the Preparation, Properties, and Uses of the latest Additions to Therapeutics. By BENJAMIN FRANK HAYS, Ph. G. 16mo, pp. 42; paper. New York: Press of C. S. Nathan. 1887.

The contents of this book justify the title. Such things as the physician needs to know relative to the molecular construction, physical properties, pharmaceutical manipulation, and therapeutic uses of the drugs discussed by the author, are set forth clearly and concisely. Thirty-two compounds are described, embracing, with a few vegetable alkaloids, the various synthetic alkaloids, acids, and terbenes which have recently been added to the physician's armamentarium.

As a pocket reference book it will serve the practitioner a good turn.

Periostitis: A lecture, by N. Senn, M. D., delivered at the College of Physicians and Surgeons, Chicago, Ill. Reprint.

Buchanan's Journal of Man is the name of a new journal, published at Boston, devoted to all the isms under the sun: J. R. Buchanan, M. D., editor.

The Therapeutical Drinking of Hot Water; its origin and use. By Ephraim Cutter, M. D., New York.

Origin of the Salisbury Plans of Diet in Chronic Diseases, with directions for preparing beef pulp. By Ephraim Cutter, M. D., New York City. 12mo; cloth. New York: W. A. Kellogg.

We have received the first number of a new journal—The Journal of Dietetics—published quarterly, at Cleveland, Ohio, and devoted to investigations into the physiology and pathology of digestion and nutrition, and the relations of regimen to practical medicine. Subscription price, 50 cents a year. The first number is made up of excellent matter, perhaps not impaired by being taken largely from well-known authorities.

Vesical Irritation in Women. By Virgil O. Hardon, M. D., Lecturer on Operative Gynecology, Southern Medical College, Atlanta, Georgia. Reprint.

Diseases of the Joints. By Howard Marsh, F. R. C. S. With sixty-four illustrations and a colored plate. 12mo; cloth. Philadelphia: Lea Brothers & Co.

Researches into the Etiology of Dengue. By J. W. McLaughlin, M. D., of Austin, Texas. Read at the meeting of the American Medical Association, 1886. Reprint.

Wear and Tear, or Hints for the Overworked. By S. Weir Mitchell, M. D., LL. D., Harv. Fifth edition. 12mo; cloth. Philadelphia: J. B. Lippincott Company. Price, $1.

Klinische Studien aus der Hydriatischen Abtheiling des algemeinen Poliklinik in Wien. Herausgegehen von Prof. Dr. Wilhelm Winternitz. Leipsig und Wien. 1887.

The Science and Art of Obstetrics. By Theophilus Parvin, M. D., LL. D. Illustrated with two hundred and fourteen wood-cuts and a colored plate. Philadelphia: Lea Brothers & Co.

A Text-book on Surgery, General, Operative, and Mechanical. By John A. Wyeth, M. D. Royal 8vo; leather. New York: D. Appleton & Co. Price, $8. For sale by subscription.

The Health Record is the title of a new journal, edited by Mark S. Purdy, B. S., M. D., and published at Corning, New York. It is cheap enough—fifty cents a year—but well gotten up, nevertheless.

A Clinical Manual of the Diseases of the Ear. By Laurence Turnbull, M. D., Ph. G. With a colored lithographic plate and numerous illustrations on wood. Second revised edition. 8vo; cloth. Philadelphia: J. B. Lippincott Company. 1887. Price, $3.

A Reference Hand-book of the Medical Sciences, embracing the entire range of scientific and practical medicine and allied science. By various writers. Illustrated by chromo-lithographs and fine wood engravings. Edited by Albert H. Buck, M. D. Vol. IV. Royal 8vo; leather. New York: William Wood & Co.

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

In the course of last year and the year before, frequent complaints were made as to certain offensive odors pervading Westminster Palace during the sittings of Parliament. Various cases of illness, occurring among members of Parliament as well as the staff of officers, were attributed to the escape of sewer gas into the buildings. A select committee was appointed to investigate the matter, with the result that the evils complained of were proved to be due to defective drainage of the premises.

The committee recommended an entire reconstruction of the sewers on an improved principle, and the proposed works have been carried out during the recess, and are now practically in working order. It appears from the interesting narrative of Mr. Isaac Shone, the engineer who designed the improvements just effected, that the drainage of the palace was defective at the outset, but in 1846 Sir Charles Barry made certain alterations, which proved adequate and worked successfully until twelve or thirteen years ago. At that time, about 1873, the metropolitan low-level sewer, 7 feet 6 inches in diameter, was put through Westminster, and the palace sewer was connected with it, its bottom at the junction being 21 inches above the bottom of the metropolitan low-level sewer. Ever since that work was done there has been daily, in dry weather, from 3 feet to 4 feet in depth of sewage floating on the bottom of the metropolitan low-level sewer, and this created a constant head of sewage against the palace sewer outlet, converting it into a creek for about two hundred feet, which contained from 1 foot 9 inches to 2 feet 3 inches in depth of nearly stagnant sewage. Besides this, in wet weather, the metropolitan sewer was not only always filled with sewage water, but sometimes this water has risen to ten feet above the crown of the sewer. During wet weather, therefore, the palace sewer and its main branch drains have been filled with sewage and rain-water, which could not be discharged until the flood-water contained in the metropolitan low-level sewer had subsided, by being cleared out by the pumps at Abbey Mills, Bow, and by running it off through the sluices into the Thames. Hence, for twelve or thirteen years past, the palace sewer as well as its main branches have been periodically converted into a series of sewage reservoirs; and from these the sewage water, as it accumulated and filled them, pressed out the foul gases contained within them up the various contributing drains into the palace. This discharge of sewer gas into the palace has been going on more particularly at night-time during the sessions of Parliament, when the lights have been burning throughout the palace, and when the waste hot water and steam from the warming and ventilating appliances of the palace were discharged into the drains and sewers and fermented the sewage lying therein. This extraordinary state of things has now been altered. The new works, briefly described, consist (1) in improving the gradients of the main sewer and its principal tributaries; (2) in reducing the sizes of the sewers; (3) in providing superior flushing appliances (Shone's Automatic Hydraulic Flushing Ejectors) for the sewers at a considerably reduced expenditure of water; (4) in providing an improved method of ventilating the main sewers; (5) in forming proper connections between the drains and main sewers, and giving extraordinary facilities for inspection at the junctions; (6) in severing absolutely the large tunnel-like connections between the palace sewer and the metropolitan low-level sewer by means of a dam constructed within the former; (7) in providing, in case of need, improved automatic arrangements for permitting the palace sewage and rainfall to flow into the metropolitan low-level sewer by gravitation, on the principle heretofore adopted, independently altogether of the ejector system, but without the possibility of the foul gases from the metropolitan low-level sewer getting into the palace sewer; (8) in preventing the hot water and steam from the boilers, etc., passing into the drains and sewers, and providing a separate and independent outlet for the same into the Thames; (9) in providing means whereby the sewage and rainfall proceeding from the Houses of Parliament shall flow uninterruptedly therefrom, both in dry and wet weather, irrespective of the height at which the metropolitan low-level sewer is discharging sewage, or sewage and rainfall in combination. This latter all-important desideratum is effected by means of Shone's Pneumatic Sewage Ejectors, which are fixed in a chamber. These ejectors are placed below the level of the Houses of Parliament main sewer, so that the sewage and rainfall flow to and into them by gravitation. The ejectors are self-cleansing and self-ventilating, and so completely do they hermetically seal the sewage and air within them that they might, it is claimed, be made to work in a drawing-room without tainting in the slightest degree the atmosphere. The Atkinson Gas-Engine Air-Compressor is used for supplying compressed atmospheric air to the ejectors.

With regard to the great question of sewage utilization, an inspection was just recently made of some works erected, in connection with a farm, to exhibit the process of Mr. Astropp, by which sewage of a neighborhood is converted into a dry, portable powder. The "sludge" is passed, by a series of continuous processes, through machinery worked by steam-power, the water being gradually eliminated, and a portable, inoffensive manurial powder produced. It is claimed for the system that it applies treatment before decomposition has been set up, and so secures the nitrogenous elements. It was stated, in answer to questions, that the cost of producing a manure, worth from thirty shillings to fifty shillings a ton, was between five shillings and ten shillings; that out of the sludge treated, five per cent was salable residuum, and that the cost of plant for a population of 100,000 would be about £3,000. The simplicity of the process elicited commendation. On the general subject of sewage utilization Mr. King, speaking of the experience of Reading, stated that there the corporation had made a profit of £900 last year, and Mr. Whittingham made a similar statement with regard to Waltham-ton.

Dr. Peter, the adversary of the Pasteur theory, is stated to be preparing a statement, setting forth that the statistics of last year's deaths from hydrophobia are incorrect. He maintains that the "intensive method" of inoculation is dangerous to life. Dr. Peter maintains that Professor von Frich, of Vienna, and several Italian medical celebrities thoroughly agree with him. He holds that patriotism and sentiment have disturbed the public mind in France, and that the Pasteur theory can not be tested within two years from now. So far from stamping out rabies, Dr. Peters believes that the evidence so far demonstrates that the inoculations may transmit the disease.

The students of King's College Hospital gave their annual entertainment, this month, to the patients in the central hall, which was decorated with flags, Chinese lanterns, and festoons of colored paper. As usual on these occasions, the galleries overlooking this space were set apart for those patients who could be moved from the wards. Down in the well a miniature stage was erected, with a curtain and footlights. The appearance of the wards of King's College Hospital is in marked contrast to that presented by some of the other hospitals in London. Here there is an air of homely comfort, and the walls are decorated with cheerful pictures and paintings by members of the Kryle Society. The entertainments were highly appreciated by the sick inmates.

LONDON, January, 1887.

STRICTURE OF THE URETHRA IN WOMEN.—At a recent meeting of the Obstetrical Society of London (Lancet), Dr. Herman mentioned six cases of urethral stricture in women under his own care, and gave the conclusions at which he had arrived from the study of these cases and twenty-three others that he had found recorded. While gonorrhea, he said, was the ordinary cause of stricture in either sex, young persons alone being considered, aged men suffered chiefly from stricture of prostatic origin, and old women were found to be affected with stricture due to general fibrous thickening and induration of the urethra, the origin of which, he suggested, might reside in the urethro-vaginal cellular tissue, which was the homologue of the prostate. As to treatment, he had found that rapid dilatation was preferable to any other method

Translations.

SHOULD TRANSFUSION OF BLOOD BE PRACTICED AS A RESTORATIVE MEASURE.—Dr. Klopsteck, a staff surgeon in the Prussian army, in a painstaking and interesting work, describes the various changes which the doctrine of transfusion has undergone in the course of time, and shows how enthusiasm at one time has given place to indifference and even condemnation at others.

He undertakes to give a thorough criticism of the indications, the method, and the result of transfusion with regard to the latest investigations, and finally sets forth the following weighty conclusions:

1. Death from hemorrhage does not result from too great loss of red blood corpuscles, but through disturbance of the distribution of blood in the vascular system.
2. In sudden loss of blood, death occurs when there is still sufficient blood remaining in the system to sustain life.
3. The direct transfusion from one person to another is very difficult to carry out, on account of the want of suitable and willing agents to supply the blood.
4. The blood of lambs and other animals is not suitable for transfusion into man.
5. Blood that has gone through any form of withdrawal can not be made a proper substitute by transfusion.
6. A direct nutrient action of the transfused blood upon the tissues of the receiver of it does not exist.
7. There is no danger of plethora connected with the direct injection of blood into the vascular system.
8. Depletory venesection in transfusion is useless and harmful.
9. The transfused blood undergoes more or less prompt destruction, and the appearances first cease with its complete removal.
10. The pressure of hemoglobin is an excellent sign for the recognition of the dissolution of red corpuscles in the system.
11. Blood and serum from different species of animals possess different degrees of destructive influence on the blood corpuscles of other species.

12. The property of producing fever by fermentation of a given specimen of blood differs in degree, according to the character of the process of defibrination; it is absent in none.

13. Transfusion of blood is to be discarded.

14. Infusion of chloride of sodium is a harmless agent for the restoration of the necessary vascular pressure after sudden profuse loss of blood.

15. The infusion of solutions of chloride of sodium is more easily borne than infusion of blood.

16. Statistics confirm this opinion of the infusion of chloride of sodium and its indication for acute anemia.—*Deutsche Med. Zeit.*

CRITICAL EXPERIMENTS ON THE RESTORATIVE INFUSION OF CHLORIDE OF SODIUM IN DOGS.—(Prof. H. Kronecker, of Berne.) In the face of the various objections which have been offered to his well-known experiments in restoring anemic men and dogs, Dr. Kronecker is firm in his declaration that in all hemorrhage, up to two thirds and may be three fourths of the presumptive mass of blood, the infusion of a six-per-cent solution of chloride of sodium will save life. A greater loss than this, especially among men, is not likely to come under treatment.

Above all it is important, in case of threatened danger from loss of blood, to inject the solution of salt in water as soon as possible. If a dog is permitted to lie a few minutes after the heart ceases to be felt, and the heart sounds cease to be heard, the heart nerve centers will be found to have lost their excitability, and it will not be possible to arouse the dog again either with salt water or blood. Furthermore, the salt water is preferable, is throughout safe, and does no harm even if infusion should be sometimes done unnecessarily.

For men the proper strength of the solution is about 0.73 per cent.

It is most convenient for the physician to have the entire necessary outfit on hand. To this belongs a graduated quart bottle with a stop-cock near the bottom and with half a yard of rubber pipe attached. Through the stopper the stem of a funnel is inserted, air-tight, and extending to near the bottom. By the number of air-bubbles rising in the flask the rapidity of the outflow of the solution can be estimated, and by a scale on the wall of the flask the amount run out may be read off. To prevent the entrance of germs, the water should be boiled and the proper amount of salt measured off in a small glass and poured into it.

In order that no germs may be sucked in from the air the orifice of the funnel may be covered with sublimate cloth. Before using the apparatus a one-per-cent solution of corrosive sublimate should be passed through the entire connected system (flask, tube, and vein canula), and then immediately hot water till it no longer tastes of the sublimate. A closely fitting canula of glass is then tied in the proximal end of a vein of the arm or neck; the air is then forced out of the canula through a fine glass pipette sucked full of the salt solution; the canula thus filled with the solution is connected with the tube of the flask, and from five to ten cubic centimeters per second permitted to flow into the anemic heart. The whole body should be kneaded, and especially the abdominal viscera, in order that the remaining blood shall be mixed and circulate with the saline solution. It is better to use too much than too little of the salt water, as the surplus can be discharged through the kidneys.

The attached canula should not be removed until the blood-pressure (pulse) has been permanently elevated.—*Ibid.*

ALCOHOL AND TISSUE CHANGE.—(Dr. Guido Bodlaender, of Bonn.) In the course of the investigations of Binz and his pupils, in regard to the assumption of French authors that alcohol wholly and unchanged is excreted by the lungs, skin, and kidneys, it was shown that only a small fraction of this body, even when large doses are taken, passes unchanged (about two per cent on an average).

The question as to whether this oxidation of the alcohol guarded the tissues of the body or nutritious substances taken into it against combustion may be answered in two ways: (1) By calculating the amount of heat produced, and (2) by measuring the amount of combustion products, such as water, urea, and carbon acid. Dr. Bodlaender has chosen the second method, and has reached the conclusion that under the influence of alcohol there is nearly always a lowering in the amount of acids and of the excretion of carbonic acid.

Alcohol introduced into the system lowers the amount of body combustion; it burns in the body and protects the tissues of the organism and other nutrient material from combustion; and it protects it so much the more as the amount of oxidation is not elevated, but lowered. This peculiarity renders alcohol at the sick-bed one of the most valuable of nutrient materials. It acts there not only by stimulation and by diminishing fever, but also as nourishment.

With the healthy, where the first two actions are not necessary, alcohol is contra-indicated, as it is also as a means of nutrition, for the sugar and starch out of which it is formed are far more valuable than the more costly product of fermentation.—*Ibid.*

ANTIPYRIN IN CROUPOUS PNEUMONIA.—(Dr. Posadsky, of Berlin.) In the treatment of croupous pneumonia with antipyrin, in doses of 7½ to 30 grains, and 15 grains to 2 drams a day, patients appear at first for the most part sensibly improved, but after two or three days from the beginning of treatment the strength and especially the action of the heart is lowered, the rate of the pulse-beat fluctuates between fifty-eight and one hundred and twenty to the minute; the number of respirations fluctuates between twenty and forty-eight to the minute. During the entire period of treatment with antipyrin patients sweat slightly, and sometimes profusely. They cough with but limited expectoration, which is characteristic of the disease. The temperature falls after the first doses, but this fall is only temporary; on further exhibition of antipyrin the temperature rises again, and sometimes there is not even a temporary depression of temperature. On the breaking up of the inflammation the temperature begins to fall as a rule on the seventh day of the disease, but the fever lasts on the average a little more than eight days. Local disturbances were present for an average of 13½ days.

Complications were present in nearly all cases, and besides were often very severe, as, for instance, collapse. In the urine a considerable quantity of albumen is nearly always demonstrable, as is also frequently the presence of antipyrin, sometimes in considerable quantity, the urine being colored cherry red by it.

The falling off in weight in treatment with antipyrin is less than with calomel; but, on the other hand, patients treated with calomel gain weight more rapidly during convalescence. In two cases an exanthem appeared, and vomiting was not rare.

Dr. Posadsky concludes with the announcement of his belief that antipyrin does not sustain its name as an antipyretic agent in the treatment of croupous pneumonia, and that in view of its general influence upon the course and result of processes in diseases of the respiratory organs it is not to be given.

A MONKEY AFFECTED WITH YELLOW FEVER.—During the epidemic of yellow fever which prevailed the first year in Caracas we had an opportunity to see, in the house of one of our sisters, a monkey with an undoubted case of yellow fever. The principal symptoms manifested themselves in a manner so marked that there remained not the least doubt that it was a case of yellow fever that we had before us. There was injection of the eyes, a certain state of stupor, sharp thirst, nausea, elevated temperature, and at last prostration, anuria, and black vomit.

For three days the poor animal remained in this sad condition, each day growing worse and presenting in succession the symptoms described, until the fourth day, when the case terminated fatally.—*Doroteo de Armas* (*De Ensayo Medico de Caracas*).

DR. G. A. BLUMER has been elected superintendent of the Utica State Lunatic Asylum, to fill the vacancy created by the death of Dr. John P. Gray.

THE honorary degree of M. D. has been conferred upon Mr. Lawson Tait, of Birmingham, England, by the University of the City of New York.

Abstracts and Selections.

Preservation of the Perineum During the Expulsion of the Fetal Head.—There exist many methods proposed from time to time for preventing the rupture of the vulvo-vaginal orifice. All play a more or less useful part in the general management, looking toward the protection of the soft parts. But I am satisfied that no one of them by itself is complete or efficacious.

1. There is one which is radically bad, and naturally it is the one most frequently employed, being still recommended and taught. It consists of forcibly applying the palm of the hand at each expulsive effort flat upon the perineum. This is called "supporting the perineum." That expression should be expunged from obstetrical language, for then, perhaps, the last remnant of this disastrous method would disappear also. Its most frequent result is that the perineum is torn from top to bottom between the hand which presses and the head which forcibly advances. If this accident does not happen it is because of the extreme suppleness of the tissues, or else because the pressure of the hand upon the head prevents its rapid advance, and so is of benefit in an unexceptional and unintended way.

2. A somewhat better method, taught by some of the pupils of Tarnier, after the English accoucheur, Playfair, consists in drawing toward the posterior commissure of the vulva as much as possible of the integument. This is accomplished by placing the palm of the hand upon the perineum, the radial border encircling the lower half of the vulva, the thumb being placed just inside of the tuber ischii of one side and the index and middle fingers just inside that of the other. At each uterine contraction by approximating the thumb and fingers the soft tissues are forcibly drawn toward the fourchette. The object of this procedure is to increase the amount of tissue at the perineum, and in that way to produce a relaxation. It is possible that this method may sometimes be successful in fat women with flabby and elastic skin, but it is a mistake to suppose that success will be the rule. I have often tried this method by itself with the view of determining its value, and I must say that I have no confidence in it. In many cases it is impracticable as well as useless, since the perineal integument is so tense that any folding of the skin is impossible, even in the intervals between the contractions.

3. Finally there is a third method, which consists in dividing the perineum to prevent its being torn. This is like jumping into the water to get out of the rain. It is sometimes spoken of as prophylactic incision or, in more strictly surgical language, episiotomy.

The most frequent laceration of the perineum is at the fourchette. In nine cases out of ten it commences in the mucous membrane of the vagina and extends thence to the skin. It is a laceration by propagation. When it is otherwise the laceration is either unilateral or bilateral and occupies the inner face of the lateral walls of the vagina and of the labia, its direction being parallel or slightly oblique to the axis of the vagina. The maximum of laceration is at the vaginal sphincter. This proves that the resistance is at the vaginal sphincter and that the incision should be made at that point, and not at the free muco-cutaneous border which encircles the head in its passage through the vulva.

What are the evil results of these various lacerations when occurring spontaneously? It is a well-known fact that they differ materially according as the lesion is in the fourchette or in the vaginal walls.

Those of the walls cicatrize very readily, are very easily treated by topical applications, are very little exposed to infection, and interfere very slightly with the resistance of the pelvic floor in its *rôle* of supporting the pelvic organs. Those of the fourchette are often retarded in their cicatrization by the contact of the lochia and their situation at the angle of the vulva. Topical applications are not easily kept in contact with them. They are constantly exposed to the direct absorption of septic products, and in case of non-union and healing by granulation, the vulva is more or less enlarged, and the supporting power of the perineum lessened.

Hence, if prophylactic incision is practiced, it may be done intelligently if not judiciously. It is the vulvo-vaginal sphincter or the muscular orifice of the vagina which resists, and not the vulvar border. It is therefore necessary that a probe-pointed bistoury should be carried flatwise up to the sphincter in the interval between two contractions. (The sphincter is from three quarters of an inch to an inch and a quarter from the free border of the vulva.) It is at that point that the incision should be made, and it should embrace the whole thickness of the sphincter. It may thence be carried down to the free border if necessary.

But far more important and effectual are those methods which are applied to the fetal head, the principal one of which consists in giving the head time enough to make a passage for itself, and in so directing the movement of the fetus that the maximum of force shall be directed toward the point of greatest resistance, and the weaker parts shall be protected.

To accomplish these purposes, two objects must be kept in view:

1. To modify the force and rapidity of the expulsive contractions of the womb. The object of this is to prevent rupture of the mucous membrane at the vaginal sphincter.

2. To disengage the fetal head without the aid of the voluntary or involuntary efforts of the parturient woman by an artificial means employed in the interval between two of the final explosive efforts. The object of this is to prevent rupture of the fourchette—that is to say, the muco-cutaneous angle of the perineum.

The first object, the slow and gradual progression of the head, which is equivalent to the slow and gradual distension of the vulvo-vaginal orifice, is easily accomplished by counterpressure exerted lightly or forcibly, according to circumstances, by the left hand of the accoucheur upon the occipital extremity of the head during an expulsive pain. During the whole period of expulsion it is necessary to push back the head if it is too rapidly advanced by the uterine contractions. In order that the perineum may remain intact, this contest between the accoucheur and the uterine efforts should last for a half or three quarters of an hour at least. I always protest against the practice of exhorting the woman to bear down forcibly as soon as the head appears. It is neither necessary nor useful. It is positively injurious, since it renders her more liable to a laceration. Its only advantage is to save time for the physician and his assistants.

But when must one cease to push back and restrain the head? I think the pressure should not cease until the time arrives for the employment of the second procedure. I refer to artificial extraction by the hands and fingers, and to rectal expression especially.

We are indebted for the method of rectal expression to Olshausen and Ahlfeld. It consists in introducing two fingers into the rectum of the woman toward the end of a pain and carrying them up to the mouth or under the chin of the child. By well directed pressure downward and forward, the extension of the head may be accomplished so that it will escape from under the pubic arch. This maneuver is very easy of accomplishment, for the anus is widely dilated and is free from fecal matter. It is not painful. I have never heard women complain much during the process. Care must be taken that the extension should be slowly accomplished; otherwise an injury to the fourchette or the lateral walls of the vagina may result. For this reason it is necessary to combine traction and pressure by means of the fingers in the rectum.

In regard to the time for the employment of this procedure, two points are to be borne in mind:

1. It must be undertaken only in the interval between two contractions. The pain must be on the wane or entirely ceased. For the greater security it is best to direct the woman to abstain from bearing down. Up to this time voluntary efforts have been necessary. The accoucheur has regulated and encouraged them. But at this point they become useless and even dangerous.

2. In order to judge when the propitious moment has arrived, it is necessary to wait for certain conditions to be fulfilled. After a careful study of the subject in primiparæ, I am satisfied that when the posterior angle of the anterior fontanelle is plainly visible at the commissure, it is time to employ rectal expression and to accomplish artificial delivery by the combined use of two hands. At that moment the largest circumference of the head is engaged or about to be engaged; it may have even passed the point of resistance; this depends upon the conformation of the head.

Thus performed, rectal expression, which is my habitual practice in primiparæ with small vulvæ, has given excellent results in my hands. No other argument is needed to recommend it. If figures were necessary, I could furnish comparative statistics of the three following methods: Spontaneous disengagement, various methods of supporting the perineum, and rectal expression, to prove that the last method is the one in which there is least liability to rupture of the perineum.

I conclude then that the best method of protecting the perineum is the following:

1. To prevent a deep rupture from commencing at the vaginal sphincter during the too rapid progress of the head at that point, regulate and control the passage of the head through this part of the canal, which in primiparæ should occupy from one half to three quarters of an hour. The distension of the parts should be gradual, and the tearing of the mucous membrane should be avoided. To secure these objects, control the escape of the head by pressing it back, not in a haphazard way, but at each new uterine contraction.

2. To prevent a rupture of the fourchette from occurring alone, or as the result of a slight lesion of the mucous membrane in a part of the vagina concealed from the eye of the physician, wait until the largest circumference of the head is engaged, and when a half of the anterior fontanelle has emerged, execute the maneuver of rectal expression.

3. If, through fear or through haste, a liberative incision is decided upon, wait as long as

possible, and then make it laterally and through the vaginal sphincter by means of a probe-pointed bistoury introduced flatwise, at the end of a contraction, while the part is still tense.—*Doleris, Nouvelles Archives d' Obstretrique et de Gynecologie.* (Translation): *Archives of Gynecology.*

THE RELATION OF GONORRHEAL INFECTION TO PUERPERAL DISEASE.—Sänger, in his communication to the German Gynecological Society, agrees with Nöeggerath as to the frequency of gonorrheal infection. In order that the diagnosis may be confirmed, there must be a clear history in regard to the man or the woman, or ophthalmia of a child—disease of the urethra (vagina) and the vulvo-vaginal glands—especially the latter.

In his cases, Sänger did not regularly examine for the gonococcus, as its presence is inconstant, and it is not yet possible to differentiate it from pseudo-gonococcus.

In 1,930 gynecological cases, in private and polyclinic practice, Sänger found 230 cases, or 12 per cent, due to gonorrheal infection, and 161 farther cases, 28, or 18 per cent. In more than half of the cases the proof was indisputable.

Among 389 pregnant women, 100 had a purulent discharge—26 per cent. (Oppenheimer gives 27 per cent for Heidelberg), and 40 children had blenorrhea.

It is noticeable that the gonorrheal infection does not lead to puerperal infection. Those patients affected with gonorrhea appear apparently in the same condition as those not affected, but very often during the puerperium a severe gonorrheal inflammation is set up, which is frequently mistaken for a puerperal disease. Angus Macdonald has pointed out that the gonorrheal infection of the childbed may give rise to serious, and even fatal, results. In some of these cases the termination may be due to septic infection.

The writer referred to a case of gonorrheal infection appearing during the third week after labor, where there was parametritis on the left side of the uterus, and pelvic peritonitis, with exudation into Douglas' cul de-sac, on the right side. The attending physician had diagnosed puerperal infection.

A pyosalpinx was supposed to be present on the right side—this was afterward confirmed by operation. It is the tubes affected with gonorrheal inflammation that give rise to pelvic peritonitis and exudations during childbed. These cases run a milder course than the septic inflammation, which is nearly always fatal.

Gonorrheal exudations run a course, but appear late in childbed. In cases of women who have borne children, where recent or old perimetric exudations are found together with diseased uterine adnexa, the conditions nearly always take their origin from a gonorrheal infection.

It affects women whose tubes were diseased before and during pregnancy, or those who have unclean connection soon after an abortion or labor. In those cases especially, a pelvic peritonitic inflammation with disease of the tube is the result.

The reason that the disease appears so late is, perhaps, because the gonococci are washed away, or menstruation sets in, etc. Sänger thinks that the gonococci work only on the surface. Gonorrheal infection appears to be almost harmless during the early days of childbed. But those who have suffered from the more severe forms of gonorrhea are witness that after three to seven weeks they are attacked suddenly with the above conditions, which have no reference to the puerperium. In this way gonorrhea is easily differentiated from septic infection.—*Ibid.*

THE VALUE OF QUININE AS AN ANTIPYRETIC IN PNEUMONIA.—The experiments on which his observations were based were commenced in 1877, at St. Francis' Hospital, New York, and since that time had been continued by successive house physicians acting under his direction. Although a much larger number were made, the experiments available for the purpose under consideration were forty-eight in number, and the patients who were the subjects of these, varied from nineteen to forty-five years of age. The plan carried out was to give quinine as early as possible in the course of the disease; but only in cases in which the temperature was at least 103°, and which were uncomplicated. Each patient was watched for several hours before the experiment was commenced, and all the observations of temperature were taken in the rectum. No experiment lasted less than four hours, and the majority were continued for from twelve to fifteen hours. The time of day at which the quinine was administered varied; but when only a single dose was given in the twenty-four hours it was given in the morning. In twenty of the experiments a single dose of twenty grains was given, and in eight a single dose of forty grains. It was usually given in solution, but in some instances was used hypodermically. In two of the patients there was no reduction of temperature whatever noted after the use of quinine, and in two a slight elevation occurred. The reduction of temperature effected by the quinine was always of short duration, and it was frequently less than an hour. The effect of the remedy on the pulse and respiration was not a constant guide to its effect on the temperature. It varied in different cases, but the pulse and temperature were usually reduced in frequency.

In about half the cases the temperature was lowered between one and two degrees under the use of quinine. In the other half the reduction was less than half a degree. The gain thus made was never held for more than from two to four hours. In many cases the antipyretic effect was, no doubt, only apparent, and the reduced temperature was really due to natural causes.

The conclusion arrived at by Dr. Ripley was, that quinine is a feeble and uncertain antipyretic in pneumonia. But this is not all. It has a bad effect on the appetite and digestion, and not infrequently excites nausea and vomiting. In addition, it is liable to produce marked cardiac weakness, profuse cold perspiration, and profound nervous depression. Opisthotonos was noticed in one instance, and in many cases it caused epistaxis. In three cases the urine was examined before and after the ingestion of quinine in large doses; and in one, the urine, previously normal, was found to contain large quantities of albumen, hyaline casts, and renal mucus after the use of the drug. These bad effects, he thought, more than counterbalanced any good effects that could be attributed to it.

Moreover, he could not see that it had shortened the natural course of the disease in any case. In some instances the pneumonic consolidation had extended under its use. In general, he believed that too much importance is, at the present day, attached to the reduction of temperature in febrile diseases. In typhoid and other fevers much better results had been obtained at St. Francis' Hospital since heroic measures for reducing temperature had been given up. That quinine has any effect in preventing cell migration, as alleged by certain authors, he thought was extremely doubtful. In conclusion, he expressed the opinion that large doses of quinine in pneumonia should be abandoned. If an antipyretic effect was desired, we possess much more efficient agents in antipyrin and salicylate of sodium.—*Dr. J. H. Ripley, Trans. N. Y. Academy of Medicine.*

TABETIC JOINT DISEASE.—Ever since Charcot, in 1868, drew attention to the occasional occurrence of a peculiar joint affection in tabetic patients, to which he gave the name of *arthropathie des ataxiques*, joint disease occurring in the course of tabes dorsalis have received close study from neurologists and pathologists. The subject was recently under discussion before the Berlin Medical Society. Rotter opened the debate, and said that the nucleus of the subject lay in the following questions: (1) Whether the joint affections in tabetics had any special features different from those of other joint affections? (2) Whether they had a mere outward or indirect relationship with tabes, or were connected with it by a consensus of internal causes? These questions would have to be decided, the speaker very properly added, by clinical study, pathological investigation, and experiment. Thus far, experiment has been fruitless; as the result of clinical observation, it is pretty generally accepted that the arthropathies of tabes differ clinically from all other joint affections, and that they present the following characteristics: Without any premonitory symptoms or appreciable cause, a particular joint suddenly becomes swollen, always to a considerable and sometimes to an enormous extent. The swelling is not attended with pain, fever, or redness, but the tissues surrounding the joint become edematous and doughy. In a week or two the swelling disappears, and it is then noticed that serious injury has resulted to the joint, destruction of the cartilages and ligaments having occurred, so that the ends of the bones are in contact with each other. A creaking sound is heard on moving the joint, and luxations may readily take place. The destructive process does not expend itself on the cartilages, but extends to the ends of the bones, which become atrophied and eroded. There is very little tendency to exostosis, but the bones become fragile, and fractures may occur on the slightest injury, what is known as "spontaneous fracture" being also met with. The process may be limited to one articulation, or it may involve several joints. The order of frequency with which the different joints are affected is usually the following: the knee, the shoulder, the hip, the elbow, and the wrist.

The pathology of these affections is a vexed question. In his first cases Charcot found destruction of the ganglion cells in the anterior horns of the spinal cord, and to that he attributed the articular trouble; but other observers, and subsequently Charcot himself, failed to find any change in the anterior horns. Then the rarity of joint affections in the spinal paralysis of children militated decidedly against this theory. At the Berlin meeting referred to, Virchow remarked that there was virtually no difference between the *arthropathies des ataxiques* and arthritis deformans, although the former were characterized by a much more rapid development, a nervous influence doubtless bringing about lowered nutrition, and the poorly nourished bones falling ready victims. But, inasmuch as a general trophic influence, like that occurring in tabes, would necessarily act on all the joints alike, there must always be a local exciting cause to set up the disease in a particular joint. The nature of this local cause might not be evident, but taking into account the close connection between syphilis and tabes, the idea might be entertained that the joint affection belonged rather to syphilis than to tabes.

Mention seems not to have been made of the recent researches of French investigators as to the condition of the peripheral nerves and tabes. Déjerine, Pierret, and more recently Pitres and Vaillard have drawn attention to the occurrence of inflammation of the peripheral nerves in the course of this disease. The latter observers attribute the arthropathies of tabes to a non-traumatic inflammation of the peripheral terminations of the nerves supplying the affected joint. A case lately reported by Strümpell, an abstract of which was given in this journal, seems to favor this view, as it goes far to show that the peripheral neuritis may occur as a forerunner of tabes dorsalis or in its initial stage—the stage in which the joint affections make their appearance. Observers are not wanting, however, who look upon the neuritis as secondary to the joint affection, which, they say, has its starting-point in a traumatism that, owing to the anesthesia of the deep structures, may not have been perceived, or may have been overlooked. It is evident that the decision of the question will require further research and experiment. Let the result be what it may, it is of the utmost importance to practitioners to know that a painless articular affection, unaccompanied by fever, may occur as an early or premonitory symptom of tabes dorsalis, and that it too frequently ends in irreparable injury to the joint.—*N. Y. Medical Journal.*

THE TREATMENT OF STRICTURE OF THE URETHRA BY GELOSINE BOUGIES.—The treatment of urethral stricture by bougies of gelosine is an application of the principle whereby dilatation of the natural passages (like the cervix uteri) is effected by substances, which, like laminaria, swell under moisture.

Bedoin has lately reported to the Paris Société Therapeutique satisfactory results in the use of gelosine bougies in urethral stricture. Gelosine is the Japan sea weed, which, in its dried state, undergoes a gradual and extreme degree of augmentation of volume when brought in contact with liquids, such as water or the secretions of the human body.

Bedoin has devised cylindrical bougies of various sizes out of this alga, which, according to his experience (he has now tried them in several cases) when employed in stricture of the urethral canal, effect very thorough dilatation, and with very little pain. He regards gelosine as fulfilling all the conditions requisite for the preparation of bougies which are strong and flexible and may be used with entire safety, and are sure to do their work thoroughly and effectually.

Such, at least, is the inventor's opinion. The introduction of tents into the strictured portion of the urethra was tried and abandoned about the middle of the last century, because of the serious accidents to which the method gave rise.

At the *séance* of June 7, 1854, of the Paris Surgical Society, bougies of prepared sponge, as proposed by Prof. Alquié, of Montpellier, were exhibited, but their use was evidently of short duration. Flexible ivory had been previously experimented with; bougies of this material possess, like sponge, the property of dilating in the canal, but, in practice, they dilated above and below the stricture faster than at the strictured portion, so that withdrawal was extremely difficult. Laminaria bougies were highly praised by Dr. Robert Newman in the Medical Record of July 1, 1872.

The prolonged retention in the urethra of a bougie which fills the canal, keeping up only a passive, and not a constantly increasing distension, is very likely to give rise to serious disturbances. Even the retention of a small instrument is an evil only to be suffered on special occasions. The constantly-increasing pressure of any slowly dilating material within the urethra is sure to prove an evil sooner or later, no matter how promising the first experiments with some new material may seem.—*Boston Medical and Surgical Journal.*

CARBON CONES AND CASES FOR THE PRODUCTION OF VAPORS AND GASES FOR MEDICAL AND SANITARY PURPOSES.—This very ingenious invention is intended to utilize the principles involved in the production of vapors and gases for disinfecting and antiseptic purposes, and for the administration of therapeutical agents either as fumigations or as inhalations. A very pure carbon combined with an oxidizing agent is molded into a hollow cone, the walls of which are part for part equal, and the size varying with the use. The central cavity is fitted with a glass flask containing the matter to be dispersed either in vapor or as a gas. The carbon cone and flask are secured on an incombustible base. It will be understood that both the method of applying the necessary heat and the arrangement of the flask and contents are fitted for producing vapors or gases of great dispersive powers. Being placed in a room to be disinfected or deodorized, the cone is lighted at the apex, and burns slowly and steadily downward. As the carbon encasement is adjusted in substance to the amount of heat to be obtained, the result of this steady progression of heating is that the *neck* of the flask is the first to become intensely elevated in temperature, the heat slowly reaching the inner contained principle. The layer of the contained substance first affected by the heated glass is at once raised into a state of vapor, which is propelled with great force along the superheated tubulure of the flask, and eventually escapes into the air in form of a high visible column. As there is no tension on the mouth of the flask, there can be no destruction of the contained substance, for whatever is capable of being vaporized at any given temperature by this method must at that temperature escape. The contents of the flask *never boil.* Since it is impossible by means of these cones to reach 537.7° C. (1,000° F.), the method becomes practicable for obtaining a large number of vapors and gases, such as oxygen, chlorine, bromine, iodine, sulphurous acid, nitrous oxide, carbolic acid, creosote, tar, terebene, camphor, eucalyptus, calomel mercuric chloride, ammonio-chloride of mercury, and the various essential oils. The system is a ready means of applying certain bodies for disinfecting and antiseptic purposes, not only more efficiently, but with decided economy. The new method has many advantages over the methods in use at present, such as sprays, hot plates, fuming papers, etc. Such contrivances are not only troublesome as a rule, but do not deliver a sufficiently constant, dry, attenuated, and active vapor or gas. This is exactly what these cones yield. With these, too, a volume of vapor or gas may be produced of any magnitude, from a few cubic inches to many thousand cubic feet. An arrangement has also been provided by which the cones can be adjusted to an inhaler with or without water vapor.—*London Practitioner.*

The Condition of the Larynx in Whooping cough.—Von Herff (*Deut. Archiv. f. Klin. Med.*) has taken advantage of his opportunities, while suffering from an attack of whooping-cough, to make a series of observations on the appearances presented by the larynx in this disease. All the more value attaches to these, that the observations relating to this subject already made have hitherto been neither numerous nor at all exhaustive. He was enabled to examine his larynx throughout the whole course of the disease, sometimes even during the attacks of spasm. The results of his observations were as follows: (1) Throughout the whole course of the illness a slight degree of inflammation of the mucous membrane of the respiratory tract was seen to exist, extending from the posterior nares to the bifurcation of the trachea. In the earlier stages, this inflammation took the form of a slight catarrh, but during the spasmodic stage it was very intense and wide-spread, and only slowly disappeared during convalescence. (2) The intensity of this inflammation varied in different parts of the respiratory tract. It was specially well-marked over the mucous membrane covering the arytenoid cartilages and the cartilages of Santorini and Wrisberg, but was greatest over the back wall of larynx between the vocal cords, as well as on the under surface of the epiglottis. The other parts of the larynx remained unaffected, the vocal cords themselves being quite intact. The hyperemia, however, extended into the trachea, and could be distinctly seen as far down as the bifurcation. (3) It was found that during every paroxysmal attack a small pellet of mucus could be seen lying on the back wall of the larynx, on the level of the glottis, on the removal of which the attack instantly ceased. (4) Further, by irritating this part of the larynx by means of a sound, a spasmodic attack of coughing could be induced, simulating in every way to the attacks of the whooping-cough. Irritation of the under surface of the epiglottis had a similar, though less marked, effect. On the other hand, stimulation of other parts of the larynx was entirely without effect in producing the characteristic paroxysms of coughing. He is therefore of opinion that the inflammation of the mucous membrane in this inter-arytenoidal region is specially connected with the peculiar attacks of spasm in whooping-cough.—*Ibid.*

Secondary Syphilitic Inoculation or Contagion. — Dr. J. J. Cassidy, of Toronto, writes:

In eighteen years' practice in this city I have treated two cases of chancre on the lip. Both patients were respectable young girls. The history of the first case is as follows: H. S., eighteen years of age, Canadian, was brought to my office by her mother, to be treated for an indurated sore, situated about two lines below the red margin of the lower lip. The cervical glands were enlarged and tender. Dr. J. E. Graham, of this city, saw the case with me, and pronounced the disease a true chancre. Anxious to learn the cause of the disease, I questioned my patient as to her relations with gentlemen. She informed me that she was receiving attentions from a young man to whom she was engaged to be married. I asked if her affianced was of good constitution. She replied in the affirmative, and stated that she never knew him to be ill; but that, owing to overwork at the shop, he occasionally felt weak, and was taking a tonic. I obtained a sight of the prescription, and, as I expected, the principal preparation in the formula was iodide of potassium. I then asked my patient to request her affianced to call at my office. He came. I informed him of my suspicions, but he denied having had any improper relations with women. His penis was free from disease. He had, however, a number of mucous patches on the inner surfaces of the lips and cheeks. He acknowledged having frequently kissed my patient, but stated that he had no idea that poison could be conveyed from his mouth, as he supposed his sores to have been caused by his habit of holding zinc nails in his mouth when working at his trade. I treated the patient for some months with mercurials, and learned subsequently that the pair got married; but their subsequent history has not reached me.

M. C., aged nineteen, Canadian, was receiving attention from a young man, and consulted me for an indurated sore, situated at the edge of the red margin of the lower lip. The cervical glands were enlarged and tender. In this instance I was unable to secure the attendance of the donor, and can not therefore describe the state of his buccal mucous membrane. The young lady, however, stated that he had been taking mercury, and that he had a tender mouth. Mercurials were used in her case till the disease was cured.

I can not say whether these cases were instances of inoculation or contagion. I questioned both patients on this point, but neither of them remembered having had a pimple or an abrasion about the mouth previous to the appearance of the chancre. The presumption would therefore be in favor of contagion. I do not, however, consider the evidence conclusive. The same difficulty must surround the origin of the chancre in the male. Not every man who presents himself with a chancre can say for certain that he had no abrasion of the surface of the penis before or during coitus. Every thing considered, it is hard to say how the bacillus of syphilis effects an entrance into the body—whether it goes to the blood directly through an abraded surface or through the lymphatics, or through both these channels. It is certainly, however, more reasonable to attribute syphilis to inoculation than to contagion. The interesting point for practitioners to know is that syphilis may be communicated from secondary lesions. A patient under treatment for syphilis should therefore be informed of this fact by his physician.—*N. Y. Med. Record.*

An Analysis of Two Hundred and Fifty Autopsies of Drunkards, Illustrating the Prominent Lesions of Chronic Alcoholism. Dr. Foramel, in a paper on the above subject, considered the most prominent lesions to be cyanotic induration of the kidneys, fatty infiltration of the liver, and mammillated stomach. His cases had been those in which there had been a history of a long-continued series of debauches, the subject often dying in one of these debauches, and did not include moderate drinkers, or those who perished after imbibition of an enormous quantity of alcohol without any previous chronic excesses. He thought that the exposure, irregularities of diet, etc., incident to a state of drunkenness, had much, probably more than the alcohol itself, to do with the production of the lesions; but it was not at all possible to separate one from the other. He gave a long list of lesions considered by various authors to be the result of chronic alcoholism, among which the sclerotic liver with contraction held a prominent place. He had himself, at one time, considered cirrhosis a very frequent if not altogether necessary concomitant of the long-continued, excessive use of alcohol, and had even testified in court that a certain person was not likely to have been a hard drinker, because at the autopsy no cirrhosis of the liver was found. He had thought, too, that the connection between the two was so close that it was impossible to have a case of cirrhosis without a previous history of alcoholism, as is held by various authors. Therefore it was surprising to him to meet in his two hundred and fifty autopsies only six cases of cirrhosis of the liver with contraction. In two hundred and twenty cases the liver was considerably or even very much enlarged, the enlargement in most cases proving to be due to a fatty infiltration. Cyanotic induration of the kidney and chronic gastritis, with mammillation of the stomach, were found in nearly every case. This cyanotic induration is peculiar, and differs from the cyanotic induration due to heart disease.—*Philadelphia Medical Times.*

Agaric in the Sweating of Phthisis.—Dr. N. S. Lincoln called my attention to the powerful influence of pulverized agaric to control the sweating of pulmonary phthisis; since then I have used it in five cases, with the greatest success.

In the first case I prescribed the powder in ten grain doses at bedtime. Owing to its cathartic effect I reduced the dose to five grains. Continuing this for a week, all sweating ceased. I now, in this case, only use it when a slight moisture of the skin during the night warns the patient that he may be going to have a return of the sweat. In one case I had to repeat a five-grain dose every two hours, three times one night; no cathartic effect resulted. I call your attention to this remedy because, when I first ordered it I found great difficulty in obtaining the smallest quantity, either of the powder, the alkaloid, or the fluid extract. The remedy, while so effectual in controlling the sweating, did not help the cough or produce drowsiness. *Dr. Armistead Peter, Philadelphia Medical News.*

The Action of Drugs in the Movements of the Stomach.—Motor disturbances of the stomach play an important part in the diseases of this organ. Shutz (*Archiv. exp. Pathologie*) has attempted to determine experimentally the effects of various drugs. The following are the conclusions:

1. *Excitants of the automatic centers*, with exaggeration of spontaneous movements, eructin, tartar emetic, apomorphia, and to a less extent strychnine, caffeine, veratrin, chloride of barium, nicotine and pilocarpine in small doses.
2. *Excitants of the nervous extremities*, with general contraction of the stomach, muscarine.
3. *Increasing muscular excitability*, followed by tonic contraction of the stomach, phyrostigmine, digitaline, scillain, helleborine.
4. *Paralyzers of the automatic centers.* No substance totally destroys the movements of the stomach. Movements are diminished by chloral, urethran, morphine, pyrophosphates of zinc and arsenic, and by nicotine and pilocarpine in large doses.
5. *Paralyzers of the nervous extremities.* Atropin, ether, and chloroform abolish temporarily the excitability of the entire nervous apparatus of the stomach.—*Buffalo Med. and Surg. Reporter.*

The Lateral Closure of Wounds of Large Veins.—In a recent number of the *Deutsche Medizinal-Zeitung*, Dr. Schmid describes certain experiments on rabbits in closing wounds of veins by means of small clamps left in position for twenty-four hours under antiseptic dressings. The jugular or the femoral vein was exposed, and slit or nicked with scissors; the opening thus made in the vessel was then carefully closed with from six to twelve *serres fines*, and covered with protective. The vein was not dissected from its bed, but two catgut ligatures were passed under it to hold it in position. At the end of twenty-four hours the clamps were removed under antiseptic precautions, and the external wound was closed with sutures. In from six to fourteen days the vein was again exposed and dissected out. In no case was there any hemorrhage, and in most instances the lumen was perfect and there was no thrombosis. In the majority of the animals the places that had been occupied by the clamps were marked only by fine whitish points or were indistinguishable, but in two of them the vessel was found transformed into a connective-tissue mass. Schmid thinks that this method of treatment may find a wide range of application to the human subject in the closure of wounds of large veins, and result in the abandonment of the practice of ligation above and below the wound.—*N. Y. Med. Journal.*

Yeast as a Therapeutic Agent.—Heer recommends, in *Deutsche Medizinische Zeitung*, yeast for the cure of scurvy and cholera. Four hundred cases were observed. Heer makes the following claims:

1. Probably yeast is one of the best curative agents for infectious diseases. This has been demonstrated in scurvy and purpura.
2. In advanced consumption it allays high fever and stops solidification of lung structure.
3. No bad results follow the administration of yeast. As high as two liters may be borne without the slightest evil effects.
4. Patients take it willingly, and it can be given instead of milk.
5. It is readily assimilated, and can be used as a food.—*National Druggist.*

Warts.—It is now fairly established that the common wart, which is so unsightly and often proliferous on the hands and face, can be easily removed by small doses of sulphate magnesia taken internally. M. Colrat, of Lyons, has drawn attention to this extraordinary fact. Several children treated with three-grain doses of Epsom salts, morning and evening, were promptly cured. M. Aubers cites the case of a woman whose face was disfigured by these excrescences, and who was cured in a month by a dram and a half of magnesia taken daily. Another medical man reports a case of very large warts which disappeared in a fortnight from the daily administration of ten grains of the salts.—*The Medical Press.*

Treatment of Nephritic Colic.—Huchard (*Les Nouveaux Remediès*) recommends the following:

Sodii benzoat.......... }
Lithii carbonat......... } āā......gr. xlv;
Ext. stigmat. maydis. }
Ol. anisi.............................gtt. iij.

Divide in 60 pills. Sig: Four pills daily.—*Medical News.*

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. III. SATURDAY, MARCH 5, 1887. No. 5.

D. W. YANDELL, M. D.,
H. A. COTTELL, M. D.,
D. T. SMITH, M. D., - - - Editors.

A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

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THE PREGNANT AND PARTURIENT UTERUS.

The current number of the American Journal of the Medical Sciences contains an abstract of a work by Schroeder and his pupils, comprising the description of a frozen section of a woman dead at the beginning of the first stage of labor, a description of the anatomy and physiology of the lower uterine segment by Hofmeier, and a consideration of the physiology of the second and third stages of labor by Schroeder and Stratz.

According to Schroeder and Stratz, the uterus at the end of pregnancy is made up of three different parts, viz., the part of the uterus capable of retraction, the lower uterine segment, and the cervix.

The lower boundary of the first part is where the peritoneum becomes loosely attached and where large veins are met with on section. Below this is the lower uterine segment, where, during labor, we have no active contraction. The boundary between the lower uterine segment and the active portion of the uterus is the contraction ring, while the os internum separates the lower uterine segment and cervix. By uterine retraction the contraction ring rises, and the lower uterine segment and the cervical canal open up from above downward, the capacity of the retracting portion of the uterus diminishes and the uterine contents are driven into the expanded lower uterine segment and cervix.

The fact that during labor, while the child is being driven down, the fundus remains high and at the same level, viz., toward the right side usually, and below the ribs, the authors explain by asserting that the descent of the child is the result of its elongation and the separation of its breech from the fundus uteri. To prove this they give the results of measurement and palpation. They assert that while the first stage is completed by uterine retraction, the second is finished by intra-abdominal pressure alone. As Ahlfield has shown, the doubled-up child *in utero* measures half its length when extended. This position of the child is not due to uterine pressure, but is primary. Before labor the uterus takes the shape or impress of its surroundings, but during labor it becomes rounded, the long diameter shortening and the transverse and antero posterior becoming greater.

Measurements of the fetus during labor give results which can only be explained by supposing that the fundus is not in contact with the breech.

Dr. Berry Hart, who has charge of this department of the journal, and who himself, as a philosophical obstetrician, is fairly in the foremost rank, in a note appended to the synopsis, takes issue with the great German whose death the scientific world is just now lamenting, and expresses the belief that the proof as to the breech of the child leaving the fundus during the second stage seems incomplete and is not borne out by any sections. He also says that the statement that during the second stage the uterus is not a factor is novel, but is not supported by sufficient evidence, and that granting even that the breech has left the fundus and that liquor amnii lies between, why should not the uterine retraction act on the child through the waters?

It is with great diffidence that we venture an opinion adverse to the teaching of these eminent writers, but as a disciple we assume the privilege since the masters are not all at one.

It may be taken for granted that when once all modifying conditions are fully accounted for, it will be found that all physical processes are based on the principles of physics, that is to say, on mathematical principles.

We are told that "during labor the fundus uteri remains high and at the same level," and again, that "before labor the uterus takes the shape or impress of its surroundings, but during labor it becomes rounded, the long diameter shortening and the others becoming greater," statements which are contradictory, unless reference is had to the actual pains. If now we attempt to apply simple mechanical principles to the expulsion of the child into the lower segment of the uterus, the facts all become consistent.

A soap-bubble or a rubber toy balloon when fully blown becomes spherical, for the simple reason that a given investing membrane has the greatest capacity in the spherical form. Unless the wall containing the envelope is stretched, every departure from the form of the sphere diminishes its capacity.

Some distance above the external os (about three inches in the case in question) begins the strong contraction ring of circular muscular fibers. This is thicker and stronger and shorter than the mass of longitudinal and oblique fibers passing over the fundus, and by every rule of physics is capable of outdoing them in contractile effort; and the outcome of this excess of contractile effort upon the part of the circular fibers is to reduce the diameter of the uterus and retain the fundus at its primary level, or even cause it to rise up during pains, as asserted by Lusk. This contraction of circular fibers will have the further effect of stretching out the fetus *in utero* and causing its head to advance into the lower non-contracting segment, for the reason that the child can not remain doubled up in a cylinder as it can in a sphere. Of course, between pains a greater retraction of the fibers of the fundus may take place, and as labor progresses they will shorten at a greater rate than the transverse, but in meeting a resistance that tests the strength of both the circular must prevail.

In the second stage the position of Schroeder seems to be most consonant with reason and the facts. It has often been stated that the uterus by its contractions can expel the fetus even while the patient is perfectly relaxed from chloroform. What errors of observation there may have been in these cases, or whether any, we do not know, but we suppose that few accoucheurs have pushed anesthetics in labor so far. It has for some time seemed to us very improbable that the uterus could expel the fetus after it was pushed into the lower non-contracting segments, and especially when nature has provided a method to continue and perfect the process. Every one knows how the auxiliary action of the abdominal muscles increases with the progress of labor, and how the bearing down that has to be invoked in the beginning can not be inhibited by the patient toward the end.

The result of the contraction of the abdominal muscles is to flatten or constrict the uterus during the pain, and thus to remove it from the spheroid form, and diminish its capacity. The contraction of the quadratus lumborum and erector spinæ muscles, curving the abdomen forward, have the same effect. It can hardly be doubted, then, that the irritation of the nerves at the lower segment of the uterus, instead of being expended in causing a contraction of its own muscle, is reflected to the muscles of the abdomen and dorsum, this irritation increasing as the head of the child passes through the vagina and vulva.

MOUNTAIN FEVER.

Dr. Curtin has lately been prosecuting a series of collective investigations in regard to the nature of so-called mountain fever. While he finds that almost any febrile disease which occurs in the mountains is liable to be called mountain fever, the disease more commonly and intelligently known by this name is pure typhoid fever, modified somewhat by the character of the atmosphere at great elevations.

Having had some little opportunity of observing this disease, we have no doubt that Dr. Curtin is correct. In the summer of 1864, while crossing the plains, we had the opportunity of meeting with several cases, and heard of many more occurring among the many emigrants of that year. We have ever regarded what is most commonly called mountain fever as purely typhoid fever; or, as a writer in an Eastern contemporary would have it, a pure type of typhoid fever.

When, after a few more years, the typhoids of the lowlands become crossed and hybridized with malaria, so that we have nothing but typho-malaria, it will perhaps be advisable to send out and import the pure breed.

VAGINISMUS.

The result of advancing investigation of the cause and nature of vaginismus has been to show that a great many views, at first seemingly contradictory, are consistent and correct. The disease has been traced to a large number of different causes. The misfortune has been that each observer has held that all cases are due to the same cause as the one he happened to have in hand.

Thus, one observer found that in a case presenting granulations of the os or painful flexion spasmodic contraction of the muscles of the vagina occurred, which led him to hold these lesions to be the constant cause. Another found that lacerations about the line of attachment of the hymen, producing a lesion of the nature of an irritable ulcer, was a very potent cause, and he proceeded to exclude all other factors. A third found no lesion, but marked hysteria, and he attributed all cases to hysteria; and so on through the list.

Probably they were all right as to each particular case, but wrong in their generalizations. Any thing that will cause an excessive reflex action of the vaginal muscular fibers can doubtless produce vaginismus. Ulcerations of the cervix, ulcers at the vulvar orifice, piles, and hysteria, are all capable of manifesting themselves by this symptom, for so it may more properly be called. Nor is it more uniform as to degree than as to cause. There may be every grade from the slightest disagreeable sensation to the most agonizing pain. Doubtless there are an immense number of mild and temporary cases that never come to the knowledge of the physician. Treatment, of course, must vary with the cause.

Notes and Queries.

University of Louisville, Medical Department.—The Fiftieth Annual Commencement of this school took place at Macauley's Theater on the 1st inst. Prayer was offered by the Rev. Dr. E. T. Perkins.

The candidates for graduation, eighty-seven in number, were presented by the Dean, Prof. J. M. Bodine, M. D.

The degree of Doctor of Medicine was next conferred, each of the following-named gentlemen receiving a diploma at the hands of the Hon. James S. Pirtle, President of the Board of Trustees.

THE GRADUATES.

Alexander, Wm. M., Ky.
Anderson, Wm. H., Ky.
Atkinson, Jeff. L., Ky.
Buxter, John C., Ind.
Baldwin, Juby G., Tex.
Bias, Marine S., W. Va.
Boyd, Harry C., Tenn.
Bosworth, Ben. D., Ky.
Branham, Geo. H., Mo.
Burr, Wm. R., Ky.
Casto, Jasper C., W. Va.
Cecil, J. C., *M. D.*, Ky.
Charles, Wm. B., Ind.
Cleaver, Thos. F, Ky.
Clagett, Moses H., Ky,
Coppedge, Jas. J., Tex.
Conn, Walter S., Ky.
Crouch, Myrix J., Ky.
Crenshaw, Jas. C., Ark.
Cunliffe, John H., Tex.
Daly, Bernard, Ohio.
Dagley, Elias L., Ind.
Dodge, John L., Tex.
Douglas, John S., Tenn.
Dunn, Al. A., Ind. Ty.
Garrard, Frank P., Ky.
Hawn, John A., Ind.
Hammond, J. M., Ind.
Hammonds, J. A., Ky.
Hamilton, H. P., Ky.
Heffernan, Jas. L., Ky.
Hood, John C., Dak. Ty.
Hyatt, Wm. W., Ky.
Irvine, Wm. P., Tex.
Jacobsohn, Joseph, Ind.
Jackson, John A., W. Va.
Jones, Lemuel L, Tex.
Jones, Oscar L., Ky.
Jones, Benj. F., Tex.
Kubler, Nicholas L., Va.
Kelly, John C. B., Ky.
Kidd, Josiah B., Ky.
Lowder, W. L., *M. D*, Ind.
Mallory, Robt. G., Tex.
May, Julius P., Tenn.
Mason, Chas. L., Ky.
Milliken, Sam'l E., Tex.
Montgomery, Ed. P., Tex.
Montfort, Warren, Ky.
Morton, Daniel, Ky.
Moore, D. Wesley, Tenn.
Morris, J. Mason, Ky.
McDermott, Ed. O., Ark.
McIntyre, Chas. W., Ind.
McMeen, Jas. M., Ill.
Naylor, John W., Ky.
Nicholls, Wm. S, Ky.
Overton, John W., Ky.
Patton, Walter D., Tex.
Page, Sol. C., *M. D.*, Kas.
Parish, Louis N, Ill.
Pittman, Virgil I. Miss.
Pusey, Wm. B., Ky.
Ray, Augustus N., S. C.
Reeves, Geo. P., Tenn.
Ringo, James M., Ky.
Satcher, Thos. J., La.
Schofield, Linn J., Mo.
Shehon, J. Norris, Ky.
Smith, Sam'l A., Tenn.
Snyder, John W., Tex.
Southard, R. M., Ark.
Stanley, Jesse C, Ind.
Stone, Jesse B., Tex.
Swope, Sam'l D, Ky.
Thornton, Geo. G., Ky.
Thompson, W. R. P, Tex.
Tisdale, Sam'l C., Tex.
Tracy, James C., Mo.
Wallace, Rufus M., Tenn.
Weaver, James F., Tex.
Wells, M. Rich., Miss.
Wiley, Lewis D., Ky.
Williams, John W, W. Va.
Williams, Horace B., Tex.
Work, Wm. F., Ind.
Wrather, D. C., Ky.

ROLL OF HONOR.

The following gentlemen won places upon the honor list after passing a rigid written examination upon all branches of the college curriculum. The examination was open to all second-course students:

1. John L. Dodge, of Texas.
2. G. G. Thornton, of Kentucky.
3. Daniel Morton, of Kentucky.
4. Jas. L. Heffernan, of Kentucky.
5. E. P. Montgomery, of Texas.
6. S. E. Milliken, of Texas.
7. Bernard Daly, of Ohio.
8. L. J. Schofield, of Missouri.
9. J. C. Crenshaw, of Arkansas.
10. J. W. Naylor, of Kentucky.

GRADUATES' CONTEST.

The first prize, the Yandell gold medal, for the highest class standing, was awarded to John L. Dodge. The second prize, a gold medal, was awarded to G. G. Thornton, and the third prize, a gold medal, to Daniel Morton.

UNDER-GRADUATES' CONTEST.

The prizes won by first-course students for the highest averages attained in anatomy, physiology, materia medica, and chemistry were distributed as follows:

To W. R. Spalding, of Texas, the first, a copy of Gross' System of Surgery, offered by John P. Morton & Co.

To George E. Davis, of Kentucky, the second, a pocket-case of instruments, offered by Arthur Peter & Co., Louisville.

To Achilles E. Davis, of Kentucky, the third, a pocket-case of instruments, offered by Adolph Fischer, instrument-maker, Louisville.

FREE SCHOLARSHIPS,

for the session of 1887–88, offered by the faculty to the two first-course students who should pass the best examinations in all the branches taught in the school, were won by W. R. Spalding and Samuel Z. Bryson, of Texas.

INDIVIDUAL PRIZES.

The pocket case of instruments, offered by J. B. Wilder & Co., Louisville, to the student who should pass the best examination in anatomy, was won by George E. Davis, of Kentucky.

Prof. Palmer's prize, a gold medal, for the best examination in physiology, was awarded to W. R. Spalding, of Texas.

Profs. Yandell and Roberts' prize, a gold medal, for the best examination in surgery, to T. F. Cleaver, of Kentucky.

Prof. Ouchterlony's prize, a gold medal, for the best report of his clinical lectures delivered in the Louisville City Hospital, to John L. Dodge, of Texas.

Prof. Cottell's prize, a gold medal, for the best collection of mounted specimens in normal or pathological histology, to John M. Clayton, of Kentucky.

Prof. Anderson's prize, a case of obstetrical instruments, for the best examination in obstetrics and diseases of women and children, to J. L. Dodge, of Texas.

Prof. Bailey's prize, a gold medal, for the best examination in materia medica, therapeutics, and public hygiene, to J. L. Dodge, of Texas.

The gold medal for the best thesis, offered by Prof. W. H. Whitsitt, D. D., of the Southern Baptist Theological Seminary, was awarded to Louis N. Parish, of Illinois. Subject, The Importance of a Knowledge of Medical Jurisprudence to the Physician.

The prize for the best dried anatomical specimen, offered by Tafel Brothers, instrument-makers of this city, was won by F. Kinsolving, of Mississippi.

These awards were made by the President, Hon. J. S. Pirtle, who addressed the graduates and citizens as follows:

Gentlemen of the Graduating Class: The degree which you have to-day received admits you members of a most honorable and responsible profession, second to none in its important relations to society, and offering rewards for merit and labor highly prized by ambition. In every community the good doctor is beloved for his character and honored for his learning. The distinction of being a great scientist is also one of the recompenses open to him for his arduous studies and persevering observations. But I believe that your richest reward will be in the happiness you will have from doing good and from the pursuit of the studies you delight in.

The heart of each man whom I address is filled with hope. He believes that he shall succeed in making a living, perhaps a fortune, and in winning reputation with the respect of his fellow-men. Each one of you has his fortune in large part in his own keeping. Not all succeed who deserve success. Scarcely any achieve even temporary success, none permanent success, who do not deserve it. The qualities which make a man successful in life are much the same in every pursuit. There must exist an aptitude for the work, and mental capacity, industry, temperance in all things, and thought. Merely being busy will not make you physicians competent and worthy of trust, but you must study and think, and never cease doing so as long as you live. Go to your homes and open your offices with a determination to learn all you can of the subjects you have been devoting yourselves to while in our school, knowing now how much there is to learn.

You are the fiftieth class that has been sent from this school—half a century of doctors. This is a time to stop and look back, to contemplate what has been done here, and the orator of the day will take us over the whole field in his eloquent and entertaining way. You are the best result of so many years' experience in teaching. An uncommon interest attaches to your class from that fact, which is enhanced by your individual merit. The list of our graduates contains the names of many familiar to you and to the medical profession of the country and of some known in foreign lands. There are numbers of your brethren now great men. When the next jubilee year comes the names of some of you will be in men's minds and on their tongues. Let that thought spur you to increased exertion.

The President and Trustees of the University bid you farewell and wish you good fortune.

Fellow-citizens of Louisville: The Medical Department of the University is now an old school, as matters are reviewed in our Western country. It has, as a part of your University, reflected great honor upon your city and well deserved the endowment so generously given it many years since. The University is nine years younger than the medical school, and will reach its semi centennial in 1896. Much as we have, we need more. This aid can not be expected from the city, but must come from individuals. Before the first half century of the University is passed, will not some public spirited man, or set of men, some son of the University, or its sons as a body, help the President and Board of Trustees to add to the University some departments needed to make it complete? What a glorious monument to some man remains to be erected in a great free dispensary for the poor, equipped with all that modern science gives to alleviate suffering and cure the sick!

Is there not such a man, with a noble ambition to do a good work, to be found among us?

The faculty valedictory was delivered by Prof. D. W. Yandell. (See page 129.)

The class valedictory by William W. Hyatt, of Kentucky.

The audience was one of the largest ever seen in the theater, and the programme was graced with flowers in profusion, music and eloquence in due measure, and good cheer. The young physicians go forth with the blessing of their *alma mater* and the good will of the community.

Editors American Practitioner and News:

I desire to report a case which for uniqueness and profound obscurity is unsurpassed by any thing that has passed under my observation during an experience of eight years.

On the 3d day of July last I was called to see Mrs. G., who for the past few days had been under the management of another physician. Upon approaching the patient I began to realize that it would be a difficult matter to reach a correct diagnosis of the case. The patient was in her thirty-ninth year, and the mother of seven children. She was at this time in an advanced state of pregnancy. Closure of the os uteri, absence of hemorrhage, a normal state of the vulva and parturient canal, with distinct fetal movements, perceptible to both mother and physician, excluded the probability of a miscarrage. The patient complained of pain in the lower abdominal and iliac regions, extending into the lumbar region. Thermometer in the axilla indicated a temperature of 98.5°. Further examination disclosed a perfectly normal condition of the circulation. There had been persistent vomiting, a coated tongue, and an obstinate torpid condition of the bowels. Constipation being the only symptom calling for immediate attention, I prescribed rhubarb and extract of jalap, which I found on the following morning had acted efficiently in removing a large amount of fecal matter; but to my surprise the patient's condition was worse than on the preceding day. The temperature and circulation were normal. Examining the os uteri, I found it as before, normal, with no hemorrhage. The patient's persistent outcry and contorted features indicated great suffering, and called for immediate measures of relief. Regarding the trouble as neuralgic in character, I gave one fourth of a grain of morphia hypodermically, In fifteen minutes the patient went into a sleep which, however, lasted a few moments only, when she was as restless as ever. At this juncture I directed one fourth of a grain of morphia to be given, and repeated in two hours, and took my departure; but before the two hours came around the woman died.

I am at a complete loss to know what was the matter with my patient, and I have written this report in the hope that some one better posted than myself may give me some light on this peculiar case.

J. J. CHAMBLISS, M. D.

MELISSA, TEXAS, Jan. 15, 1887.

THE SURGEON AND THE GENERAL PRACTITIONER.—In an address read before the Stark County, O., Medical Society, Dr. A. W. Ridenour, of Massillon, sets forth with other clever sketches the following:

We might take up the subject of fractures, and after telling you some things you already know, proceed to tell you things you did not know, and did not believe the writer knew either. One doctor would treat all fractures of the long bones with wooden splints, without weights and pulleys; another would use weights and pulleys, without wooden, or, in fact, any splints; another would suspend the limb in mid-air; another would use the Bavarian method with plaster; another would use the plaster roller, and so on—each believing his own method the best, and standing ready at any time to testify against all other methods; even for a consideration would swear that shortening was the rule, if his cases presented shortening, and, *per contra*, should he succeed in getting no shortening in one or two cases, even forgetting those of his cases where shortening was present. We might write about the great honor it was to be called a surgeon by the profession, a butcher by the people, and a murderer by the victims. We might say that the ancestors of the surgeons were barbers; and it might seem suggestive, in view of the great desire to lop off all tonsils of more than than four lines in diameter. But it would not be right, in view of the actual condition of affairs, to say that it is not considered an honor any more by the people to be a surgeon, or rather an aspirant thereto. It would not be right to discourage the gentle rivalry that exists among nine out of ten of all practitioners, of all ages, condition, and sex, by saying that the more successful they become as surgeons the more they are shunned by the people. But we might say that some—perhaps the greater number of these aspirants after these false honors—want to pose before the eyes of their patrons as general practitioners, and not surgeons, always naming and designating some one else as being the surgeon, or, more properly speaking, in view of public opinion, "The Butcher," thereby getting the spoils, while the unfortunate surgeon really takes the odium attached to the name, and nothing more. It might be proper, then, to write a paper advising all thoughtful doctors to practice what they preach, and, to be fair, to let the spoils go with the odium; that it is perhaps true that a surgeon can not live with less than a population of ten thousand, while a physician can live and save money in a population of one thousand; that it is preferable to be a general practitioner; that it seems incomprehensible how doctors will fight for the honor (empty) of being called a butcher by the people. It is true that doctors will almost tear each other's clothes off, so great is this rivalry, to aspire to be a descendant of the *tonsorial homo*. How much better it is to dandle the babies, talk about the weather, gossip, be a children's and a ladies' man, with a good fat family practice, have plenty of money, and no enemies, no suits for malpractice staring you in the face, and not be liable to the appellation of murderer. The grave will kindly cover the mistakes of the physician, while a crooked limb meets the aspirant to surgical dishonors at every corner. We might say this picture is overdrawn, and while it would be true as regards some, yet not true as regards the majority.

WHAT PROFESSOR HUXLEY THINKS OF MATERIALISM.—Before launching the three torpedoes which have so sadly exploded on board his own ship, Mr. Lilly says that with whatever "rhetorical ornaments I may gild my teaching," it is "materialism." Let me observe, in passing, that rhetorical ornament is not in my way, and that gilding refined gold would, to my mind, be less objectionable than varnishing the fair face of truth with that pestilent cosmetic, rhetoric. If I believed that I had any claim to the title of "materialist," as that term is understood in the language of philosophy and not in that of abuse, I should not attempt to hide it by any sort of gilding. I have not found reason to care much for hard names in the course of the last thirty years, and I am too old to develop a new sensitiveness. But, to repeat what I have more than once taken pains to say in the most unadorned of plain language, I repudiate, as a philosophical error, the doctrine of materialism as I understand it, just as I repudiate the doctrine of spiritualism as Mr. Lilly presents it, and my reason for thus doing is, in both cases, the same; namely, that, whatever their differences, materialists and spiritualists agree in making very positive assertions about matters of which I am certain I know nothing, and about which I believe they are, in truth, just as ignorant. And further, that, even when their assertions are confined to topics which lie within the range of my faculties, they often appear to me to be in the wrong. And there is yet another reason for objecting to be identified with either of these sects; and that is that each is extremely fond of attributing to the other, by way of reproach, conclusions which are the property of neither, though they infallibly flow from the logical development of the first principles of both. Surely a prudent man is not to be reproached because he keeps clear of the squabbles of these philosophical Bianchi and Neri, by refusing to have any thing to do with either?—*Popular Science Monthly.*

QUALIFICATIONS IN SURGERY.—The impetus to surgery resulting from the adoption of careful antiseptics and more elaborate *technique* is producing results that are not altogether beneficial. The impression exists that capital operations, with the help of carbolic acid, can be done by almost any one, and good obstetricians are turning themselves into poor laparotomists, skillful general surgeons are becoming relatively anxious to undertake every kind of difficult abdominal surgery, and young men without special training are boldly undertaking the removal of the viscera and of visceral tumors. The operations of hysterectomy, nephrectomy, gastrotomy, pneumotomy, are in fashion, and a necessity is felt of keeping "in the swim." The result is, we fear, many disasters that are but little heard of, but which are helping to diminish greatly the beneficent results of modern surgery.

The fact is, that some natural aptitude and a great deal of special care and training are required to secure success in difficult capital operations. There are many persons not fitted by temperament or physical qualifications to do such work, but who yet are drawn by a feeling of ambition or false pride into pursuing it.

It would be better for surgical science and suffering humanity if some selective process could be applied to this matter. We do not advocate the creation of specialists who shall do such lines of work alone. This is unnecessary, and it would narrow and cripple the surgeon's art. But it is most desirable that some special qualification be shown before surgeons or physicians be allowed, by professional sentiment at least, to undertake those serious capital operations which are not required by emergencies, but through the slow progress of disease. Our schools give no special training in this direction, although they try to teach several other specialties, qualifications in which are much less necessary to the saving of human life. It is time that educational institutions take up this matter.—*New York Medical Record.*

LUTHER AND MÉNIÈRE'S DISEASE.—Luther, when he was twenty seven years old, was troubled with giddiness and sounds in his ears, and, as he was entirely ignorant of all physical science, attributed them to the devil. He says: "This toothache and earache I am always suffering from are worse than the plague. I am tormented with a noise and buzzing in my ear, just as though there is some wind tearing through my head. The devil has something to do with it. You don't know what a horrid thing this vertigo of mine is. Here all day I have not been able to read a letter through or even two or three lines of the Psalms. I have not got beyond more than three or four words, when buzz, buzz, the noise begins again, and often I am very near falling off my chair." This was in 1510. In 1530, he writes: "When I try to work my head becomes filled with all sorts of whizzing, buzzing, thundering noises, and if I do not leave off on the instant I should faint away. For the last three days I have not been able to look at even a letter. I have had another visit from the devil. My malady is made up of the ordinary weakness of old age, the result of habitual tension of thought, and above all by the blows of Satan. No medicine in the world will cure them or me." These noises in his head and ears were so confusing that in 1521, when some one gave him a bag of nuts which he put in a box in his bed-room, he thought the devil came and rattled them. He says: "When I put out the lights and got into bed, it seemed to me all at once that the nuts had put themselves in motion, not only jumping about in the sack, but knocking violently against each other, and then they came to the side of my bed to make noises at me. However, this did not alarm me, and I went to sleep; but by and by I was awakened by a great noise on the stairs, as though some one was tumbling down one hundred barrels, one after another. I rose immediately, saying: 'Is it thou, devil? Well, be it so, I commend myself to God.' I returned to bed and went to sleep. Again, at Wittemberg I distinctly heard the devil making a noise; he thrice made a noise behind the store, just as if he were dragging some heavy thing over the floor. As I found he was going to keep it up, I gathered together my books and got into bed. At another time I heard him walking about, but, as I knew it was the devil, I paid no attention to him, and went to sleep." Once when there was a great storm abroad, Luther said: "It is the devil who does this. Hark! how the devil is puffing and blowing." Then again he thought: "Idiots, the lame, blind, dumb are persons in whom the devil had established himself. All the physicians who try to heal these infirmities, as though they proceeded from natural causes, are ignorant blockheads. They know nothing about the devil or his works."—*Medical Record.*

How to Abort a Felon.—Dr. John. T. Metcalf writes to the Boston Medical and Surgical Journal: "My father was a medical man, who graduated from the University of Pennsylvania in 1816 or 1817. In 1839 I learned from him that a felon could, if seen early enough, be made to abort by wrapping the finger-end with narrow strips of adhesive plaster. When pus has been formed, I learned twenty years ago, from a country doctor, that immediate relief and speedy cure would follow the gentle, slow separation of the nail from its envelope by means of a penknife blade, not too sharp, at the point nearest the seat of the greatest pain. Very soon a drop of pus shows itself, and relief comes. I am aware that the plan described is known to many medical men. It was not known to me at the time referred to, when the country doctor showed me how to treat a paronychious patient, whose finger I was about to lay open by the 'free incision down to the bone,' taught in the lessons of my great masters."

A Damper on Quack Nostrums.—A list of patent medicines, the importation of which the Russian Government has decided to prohibit, has recently been published. It consists of about eight hundred preparations of English, American, French and German origin, the English or American numbering nearly one hundred. Pills, plasters, hair restorers, cough drops, medicated foods, ointments, and many miscellaneous preparations for a great variety of purposes, are all classed together in one long medical *index expurgatorius.* The list appears to have been drawn up by a committee of Russian physicians, and even such remedies as taraxacum and podophyllin have been struck out.—*Medical News.*

A Strange Meeting.—Not long ago a gentleman was run over in the street, in London, by a cab, and was carried into one of the hospitals and put to bed. Shortly afterward one of the house-surgeons went to attend to the case and found that it was his own brother.

The death of Professor Baumgärtner, a well-known German physician, at the age of eighty-eight years, is announced.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. III. [NEW SERIES.] LOUISVILLE, KY., MARCH 19, 1887. NO. 6.

> *Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way: and we want downright facts at present more than any thing else.*—RUSKIN.

Original Articles.

REMINISCENCES IN THE PRACTICE OF A COUNTRY DOCTOR.*

BY T. B. GREENLEY, M. D.

The object of writing this paper is more particularly to illustrate the ignorance of some who practice medicine and claim to be learned in their profession. It would be impossible to gauge the standard of a man's intellect, or to form any notion of his learning, by the amount of popular favor he may enjoy. Some men practice medicine without previously having made it a study, and stand high among their patrons. If a man can manage to throw around himself a vapory mystery, as, for instance, that he is a faith doctor, or an Indian doctor, and use a great many roots and herbs, he will soon, in the estimation of many, stand high as a physician. These pretensions among charlatans, of course, are due to the fault of the people who allow them to practice a fraud on their own credulity.

Over thirty years ago I was called to see a lady in labor. On my arrival at the house I found a child born all but the head. This condition of things had existed since twelve o'clock noon, and it was now nine o'clock at night. The doctor, having used his best efforts to deliver the head, became disgusted and left. Then a neighboring midwife was called, who exhausted her skill, and gave up the case. A second midwife was sent for, and when she failed to deliver she advised them to send for me, a distance of ten miles. I learned that the doctor exhausted his strength in trying to extract the head by pulling on the body; and also that each midwife had used her best efforts in the same line.

Fortunately I found the woman hopeful and the womb still acting. She had a pain in a few minutes after I entered the house, and before she had the second one I raised the child's body, slipped two of my fingers up, one on each side of the nose, flexed the chin on the sternum, thereby bringing the short diameters of the head to correspond with those of the pelvis, and the next pain expelled the head. This was a case of buttocks or pelvic presentation, where the face of the child looked toward the back of the mother. On examination I found the child's neck dislocated. The old lady midwife deemed it very strange that I could get the child's head away without pulling, when she could not budge it with all her strength.

I was sorry the doctor and other midwife were not present to receive a lesson. They were all ignorant of the fact that traction on the body of the child extended its head so as to throw the occiput behind the symphysis and the chin behind the coccyx. For the credit of the colleges, I am glad to say that the doctor had never attended a course of lectures, but nevertheless he was doing quite a large practice.

In 1855 I was called to see a patient, Mrs. C., in Indiana. The attending doctor sent for me on his own account, that I might bleed his patient, as his lancet was too dull for the performance of the operation. On learning the history of the case, together with the present condition of the patient, I declined to bleed her, saying to the doctor: "Here's my lancet, but you must bleed her on your own responsibility." The lady had been losing blood for two weeks (menorrhagia), the heart sympathizing, and the pulse quick and feeble — a hemorrhagic pulse. This loss of blood, together with the character of the disease, had produced considerable general nervous disturbance with neuralgia of the womb.

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* Read before the Hardin County, Ky., Medical Society, December, 1886.

He regarded the pain in the womb as due to inflammation of the bowels, and the quick pulse as evidence of fever resulting from said inflammation, and contended with me that she would certainly die with inflammation of the bowels if not bled, and that pretty freely. It was after a protracted argument that I offered him my lancet, but declined to share the responsibility of bleeding her. He had made several attempts to open a vein in the arm, but fortunately failed.

This *doctor* had never attended a course of lectures, but did quite a neighborhood practice. He had camped on the family of this patient for two weeks, having brought in his wife, as it was a protracted case. The woman, at last getting out of patience, became urgent in her demands for relief, when the doctor concluded it was necessary to bleed her from the arm, as he had been doing for some time from the purse; and, as before remarked, after failing on account of a dull lance, he sent for me at about midnight to operate, and seemed to be greatly taken back when I refused to comply with his request.

The lady was in rather a precarious condition, and the loss of a little more blood would have been hazardous. About the time our conference was drawing to a close, the patient called on me for relief, if I thought I could do her any good. I gave her a free anodyne, and in an hour or so her pulse came down in frequency from 120 to 80, when she expressed herself as feeling in every way more comfortable. She got well.

This doctor, like my friend of the midwife case, had a good deal of experience but very little judgment. We frequently see men of this stamp in other walks of life, but such can have no legitimate claim to a place in our profession. This old doctor was the most ignorant of his class that I ever met. He had been practicing many years and had familiarized himself to some extent with comparative surgery. He claimed to be an expert in treating what is termed foot-ail in sheep. He regarded the disease as being due to the presence of a worm in the foot, and his practice was to cut down in the heel and take the worm out. The worm consisted of a piece of tendon. He had cured many sheep by this simple operation. This successful practice would seem to prove him more familiar with comparative surgery than comparative anatomy.

In the fall of 1855 I was called in consultation to see a gentleman of Bullitt County. I shall ever remember this as a most unpleasant trip. We had twenty miles to go, and over as bad roads as Kentucky can afford. It was night and raining, and there was no moon.

We arrived at the patient's house at four in the morning, having ridden all night. The doctor in attendance had given the patient up on the previous day, when his brother-in-law, whose physician I was, concluded to send for me. The doctor, by agreement, had brought with him a preacher on the evening before my arrival, and they both had done their talking and were in bed asleep.

On entering the room I found the wife sitting up with the patient. I sat down by the bed and asked him how he was; he answered, "I am barely alive, and can live only a few hours." I asked him what the doctor said was the trouble with him; he answered, "pneumonia and inflammation of the bowels." I put my finger on his pulse and found it quite good, but too frequent. I said to him, "Mr. S., can you sit up for a moment that I may examine your chest?" "Oh, yes!" said he, and raised himself without apparent effort. After running my ear over his chest, I remarked to him, "You have no pneumonia, and if you will lie down I will examine your bowels."

I found slight tenderness, as is frequently the case in protracted remittent fever. I now remarked to him, "Mr. S., you have no pneumonia, and not enough inflammation of the bowels to kill you; you will get well."

"Oh," said he, "doctor don't make fun of me, I am bound to die; there is no possible chance for me to get well."

"But," said I, "you can't die, you have no disease to kill you;" but he insisted that I was only making light of his case, and that he could live only a few hours.

At last, pretending to get out of humor with him, I said in a positive tone, "Mr. S., you can not die, and I will bet you $100 that you will get well." This seemed to attract his attention, when he looked up at me and asked, "Doctor, do you really think there is any possible hope for me?" I answered, "I know there is, and I warrant you'll get well."

I now asked Mrs. S. to have the doctor waked up so that we could talk over the case. This was about daybreak, and we talked until sunrise, he contending that the patient had pneumonia and inflammation of the bowels and could not possibly recover, and I that he would get well.

At last I proposed that, as he regarded the case as hopeless, I would give him one dose of medicine, wait an hour, and if the patient did not express himself as feeling better I would submit the case. An anodyne was given, and in less than an hour we went in and inquired how he felt. He looked up and remarked that "he felt a great deal better, and that I must leave him more of that medicine."

We then agreed that he should take quinine with Dover's powder freely for the next two days. He begged me to visit him again, which I did on the evening of the second day, when I found him free of fever and confident of getting well. In a few days more he went about his business.

This was a case of neglected remittent fever, the attending physician seeing him every day, but afraid to give quinine while the fever was on.

I have never seen a more despondent patient, and have no doubt if he had not been aroused from the state in which I found him, that he would have died in accordance with the decree of the doctor and preacher.

This doctor was my old friend of the midwife case.

In 1859 I was called in consultation to see a case of midwifery, and found two doctors in attendance—these having been called secondary to two others. The woman had been in labor five days with shoulder presentation. No effort had been made to deliver the child by these men of science—some of whom unfortunately were graduates of medical schools, and one of them who was present when I arrived had especially advertised himself on cards as a "physician and surgeon accoucheur." He was a graduate of one of the best schools in the country. The woman was still possessed of some strength, but had fever, and was only semi-conscious. The womb, strange to say, was still acting. On examination, the first thing my finger encountered was the child's arm, which had been amputated at the elbow. I inquired of my learned friend, the accoucheur, what object had he in view in cutting off the child's arm? He responded that he did so in order to get it out of the way.

Although the woman was dying with inflammation of the womb and exhaustion, I remarked to the doctors that we would, for the credit of the profession, deliver the child. I got my friend to administer chloroform while I attempted to deliver the patient. I had taken out a couple of ribs in the axillæ and was emptying the cavities of the chest and abdomen, when the doctor allowed the patient to get nearly from under the influence of the anesthetic, who gave me a kick that pushed me half way across the room.

After that it was impossible to get her back under the chloroform, and she died but partially delivered. Here was the loss of two lives for want of a little knowledge in the emergencies of midwifery. A few minutes' work in this case in effecting podalic version at the proper time would have saved both. Or the mother might have been saved, even on the third day of labor, by eviscerating the child and delivering by the buttocks, or evolution.

From amputation of the arm, either at the elbow or shoulder-joint, even when the child is dead, no possible advantage can be derived; the only excuse offered being the acquisition of more room for manipulation. The presence of the arm in the vagina does not in the least interfere with the passage of the hand into the womb, as there is by this time generally sufficient dilatation for all practical purposes, and such an operation previous to the child's death would be a mere act of butchery. Dr. Meigs speaks of a case wherein the accoucheur wrenched the arm from the shoulder, the child being born alive with the end of the fractured humerus sticking out beyond the lacerated tissues. The doctor hid the arm, and explained to the family that it was absorbed during pregnancy.

A case somewhat similar occurred in France, with the difference that the surgeon amputated at the shoulder-joint instead of wrenching it off. He was prosecuted for maiming the child, it surviving the operation. It should be clearly stated "that amputation of the arm in shoulder presentations is a *mala-praxis*."

In 1872 I was called in a great hurry to see a lady who was flooding to death. I hurried to the patient as quickly as possible, and found her pulseless and blanched from loss of blood *post-partum*. It was a case of retained placenta. On examination I was unable to find the cord, and asked the doctor in attendance what had become of it. He said "in making traction it had come away." I then passed my hand up to hunt for the after-birth, but could not find it. Had I been over credulous, I might have concluded, as did a neighboring doctor a few years ago, who met with an hour-glass contraction, that it was a case without an after-birth. I here had a case of hour-glass contraction completely inclosing the placenta in the fundus of the womb, and without the cord to guide me to its resting-place. On carefully searching I found the opening, and by gradual dilatation, first with one finger and then with more, I succeeded in passing my hand through, detached the placenta, and brought it away. There was no more hemorrhage, and by stimulants and nourishment we saved the woman. She remained pulseless, however, for many hours. In this case it was fortunate that hour-glass contraction occurred, since by checking the hemorrhage it saved the patient's life.

This doctor claimed to be an eclectic and a graduate of three medical schools. He was a man of some natural ability, but without education.

In 1855 a man came to me for some poisonous medicine by which he might destroy himself. On learning the history of his case I found that he had had epilepsy for over two years; that this disease had been preceded by intermittent fever for nearly three years consecutively. He had been under the care of a regular physician for a year following the onset of the epileptic seizures; the doctor had used reducing treatment to subdue the trouble. The disease growing worse, he abandoned the doctor and resorted to patent medicines, taking all he could get that were recommended for fits. After exhausting the catalogue of patent medicines, he heard of a faith doctor in Indiana, whom he visited. This doctor gave him rather a hard prescription, which was to burn a shirt every morning for nine mornings, gather the ashes, and sow them blind-folded. By having several shirts made he managed to comply with the demands of the prescription, and yet with all this faith he did not get better of the disease. But the exercise of so much credulity in regard to the shirt treatment exhausted his supply of faith, and great despondency ensued. He now, as before remarked, was in search of a suicidal remedy. He seemed somewhat astonished when I informed him that I could not give him medicine to kill him, and jocularly remarked that doctors generally killed enough people without malice aforethought. After examining him, and finding enlargement of the liver and spleen, and regarding these pathological conditions as the probable cause of the epilepsy, I said to him that I believed he could be cured. It required some time to induce him to believe that such a thing was possible. However, by proposing to treat him for so much if I cured him, and so much (the cost of medicine) if I did not, he concluded I had faith in what I told him. I put him on a course of alterative and tonic treatment, which in a short time relieved him of all his trouble. This was one of the very few cases of epilepsy I ever cured.

Over thirty years ago I was treating a case of cancer of the cervix of a lady who had passed the menopause. She of course was not getting well as fast as she expected, and was informed of a faith doctor who was reported to cure all such cases. She spoke to me about sending for him. I told her to do so, that I would like to see how such diseases were cured. When I saw the doctor, of course I was unable to consult with him, as I was ignorant of his branch of science. He failed to cure my patient.

In my interview with him I inquired his general plan of treating diseases. He said he cured most of his cases by faith. Then I asked him what variety of diseases he treated. He replied that he "treated sore eyes, rheumatics, cancer, neuraligy, and the clip." Said I, "Why, doctor, you don't tell me you can cure the *clip* by faith?" "Well," said he, "in bad cases I use a few yarbs."

It may be asked why I met and consulted with some of these doctors. My answer is, that they were all (except the faith doctor) *legally* qualified to practice medicine. One who had no diploma practiced under the ten-years' law; two of them before there was any law regulating the practice. In fact, forty years ago there was but little law and few ethics governing the practice of medicine in Kentucky and Indiana.

The American Medical Association, since its inauguration, has exerted a more salutary influence in behalf of medical ethics and in the enactment of laws regulating the practice of medicine than all other agencies combined.

West Point, Ky.

CONTRIBUTIONS TO CLINICAL SURGERY.

BY ROB'T N. TAYLOR, M. D.

The following cases offer some points of practical interest, and in the hope that some one may be able to extract from them sufficient of value to repay for the time expended in their perusal, the writer ventures to present them:

Enucleation of Eye. A man, forty years old, had suffered greatly for three years with intense pain in his left eye, to such an extent that he was using large quantities of morphine to get relief. The eye was in a state of panophthalmitis, vision totally destroyed, and latterly, with each fresh exacerbation of pain and inflammation in this eye, the right eye also began to give pain and other evidences of inflammation through sympathy with its diseased fellow. On first seeing the man, it was explained to him how he was in danger of becoming totally and suddenly blind in the right eye also through sympathetic ophthalmia, which could only be averted by removing the left eye; this, with assurance of relief from the atrocious pain, induced him to submit to enucleation at once, which, with the concurrence and assistance of Dr. J. F. Irvine, his physician, and Dr. W. F. Taylor, was done without delay. The man thought he had received a piece of gun-cap in the eye, as the origin of the trouble; on examining the eye after removal, the piece of gun-cap was found imbedded in the choroid coat. The operation saved his right eye, cured the terrible neuralgic pain which he had suffered so long, and enabled him to discontinue the use of morphine.

Internal Hemorrhoids. The man who furnished this case was fifty years old, and had suffered twenty years with piles and "diverse things of many physicians."

He had three large internal hemorrhoids, with no other rectal disease. July 15th, under anesthetic (A. C. E.), the sphincter was thoroughly dilated, each pile incised at its base (Allingham) and tightly ligated. Ligatures cut through on eighth and ninth day. He kept his room about twelve days, and then went about as usual, suffered but little pain, and obtained a radical cure.

The speedy results of the ligature can but be contrasted most favorably when compared with the slow method of cure wrought by injection of carbolic acid, though when in very weak solution the latter produces but little pain, gives fairly good results, may be done without anesthesia, and thus commends itself to the laity. But it must be understood that this method does not entirely remove the tumors, like ligation, since it causes them only to shrink in size, but not entirely to undergo absorption. It would have required about four injections, three weeks apart, making nine weeks, to cure this case, during most of which time the man could be up and about his business. The ligature cured him perfectly in fifteen days.

Capillary Hemorrhoid. This patient is a single woman, thirty-five years old, with a retroflexed uterus and menorrhagia. For three years she had copious bleedings from the rectum with every stool. Finally, overcoming her scruples, an external examination showed no cause for the hemorrhages, but, on full dilatation of the sphincters under anesthetic, there was found on the posterior wall of the gut, above the external sphincter, a small strawberry or capillary hemorrhoid, and near it, upon the right side, a small patch of reddened, congested membrane. The pile was ligated, and the congested patch had pure carbolic acid applied to it, with the effect of curing the rectal hemorrhages.

As far as it goes this case may be taken as controverting the dictum of the authorities, who advise against rectal operations on women with uterine disease, especially if they have retroflexion, until the uterine malady is cured; an observance of which injunction would postpone operation in these cases until the next generation of gynecologists make their appearance upon the scene to cure the retroflexions, which would probably be too late to prove of benefit to the rectums.

Irritable Ulcer and Polypus of Rectum. Woman, forty years old, two children. Sent her husband for advice as to what she should do for her "piles." Prominent symptom was great pain, following at once on the act of defecation, and lasting for about twelve hours. The pain was so severe that she postponed the act as long as possible, and this resulted in obstinate constipation, which only tended to increase the severity of the pain when the bowels did at last move. She was advised to suffer until she could make up her mind to a rectal examination and operation, which she did after about four more weeks of severe suffering; when the examination revealed an elongated, deep, narrow ulcer, dorsal, its external extremity surrounded and marked by an inflamed and cutaneous growth, its internal extremity extending up the bowel beyond view, the sphincter being very irritable, and resisting efforts to pull the bowel open with fingers.

The diagnosis being thus verified, the patient received that night a good dose of castor oil, next morning an enema, and under the A. C. E. anesthetic the sphincters were slowly, carefully, and thoroughly dilated, at first in antero-posterior direction to prevent overmuch tearing of the ulcer; the dilatation was very thorough and complete, and when it was accomplished there was found just at the upper end of the ulcer a polypus, about an inch long and half as wide, attached to posterior wall of the rectum; this was firmly ligated and the operation completed by snipping off the external cutaneous growth. The bowels were confined by morphia and lead for three days, when they moved without pain for the first time in six months, and have continued to do so up to the present writing (twelve months).

This case illustrates two most important and practical points: First, that great pain following defecation and persisting for some hours is symptomatic of irritable ulcer rather than of piles; the diagnosis was made on this point before the patient was examined. Second, that this form of ulceration is frequently accompanied by polypus, which should always be looked for and removed, otherwise it may cause the operation performed to cure the ulcer to prove a failure.

Perinephritic Abscess. Woman, forty-one years old, one child, grown. Had been sick about six weeks; was being treated all that time for malarial fever! There had been from the first considerable pain in left side, about the lower border of ribs, and when the writer first saw her there was slight fullness in the left loin over the region of kidney.

I did not see her again for two weeks, the case being in other hands, at which time the swelling in left loin had so increased as to render the removal of the pus at once advisable. Accordingly, it was aspirated, and on obtaining a small amount of pus the tube was detached from the needle, leaving the latter in the abscess as a guide, by the side of which a knife was passed into the cavity, and then with knife and director the tissues were freely divided, laying open the abscess wall for a distance of three inches. All loculi of pus were broken up by finger in the cavity, and the amount of pus was beyond all expectations, based upon the size and appearances of the external swelling. Drainage-tubes were inserted to the bottom of the abscess, the woman's strength being supported by quinine, iron, stimulants, and good diet. On seventh day the abscess was freely irrigated with carbolized water, which was all the irrigation it received, but the tubes were removed and washed daily.

On the twenty-first day after the incision the abscess had contracted and filled up, forcing out the last drainage-tube. In a few weeks the woman's strength returned, but she experienced some trouble for several months in the use of the left leg, owing probably to involvement of the psoas muscle. Incision was in the left loin, just below and nearly parallel with lower border of last rib. Recovery was perfect.

This took place in March, 1884, and in April, 1886, the woman died of catarrhal (lobular) pneumonia, without ever having had any return of pain or other inconvenience due to the perinephritis.

Phimosis and Epithelial Growth upon Prepuce. This man is forty-five years old, the subject of congenital phimosis. Glans penis has always been completely covered by the foreskin, and the man has never in his life been able to expose or uncover the glans, except a little spot right at the meatus. He married early in life, and has never had any form of venereal disease. His wife has borne no children. At the age of thirty-five years he began to suffer some pain about the head of the penis, radiating into either groin, possessing the character of neuralgic pain. Some muco-purulent discharge also made its appearance at the orifice of the prepuce. This pain and discharge gradually increased, with intervals of freedom from both, but on the whole getting regularly worse, and in the latter years accompanied by considerable tenderness and soreness in the glans and prepuce.

About six months before seeking advice, a small wart-like growth made its appearance upon the foreskin, situate at the left side of the orifice; coincidently with which the pain he now suffered was much augmented. This wart grew rapidly, and with its growth the pain and suffering steadily increased.

At the time he consulted the writer (June, 1885) this growth was about the size of a three-cent piece, located just at the edge of the orifice, left side, and with its development had come on an amount of thickening and induration of the tissue of the orifice that proved a serious obstacle to the passage of urine.

The warty growth was elevated, and apparently composed of an aggregation of papules, showing cracks or fissures extending into the tissue at its base. The whole prepuce conveyed to eye and finger the sense of being much thickened and greatly indurated, as well as that of being adherent to the glans, while the pain had become so severe as to demand that something be done for its relief. In this condition he was advised to submit to immediate circumcision; and consenting, the prepuce was slit dorsally, upon a director, back to its reflection, then with scissors half or more of it was cut off, including the epithelial growth. The inner or mucous surface of prepuce and surface of glans presented a curious appearance. The two surfaces were adherent almost completely, and had to be torn apart before the scissors were used to cut off the redundant tissue. As regards the former, it had lost all appearance of mucous membrane, and was hard and dense, like cartilage; while the surface of the glans presented more the aspect of thick, tough cuticle. Entirely around the corona the prepuce had grown fast, or to express it more correctly, these two surfaces had never been separated, and all trace of the corona was lost; even tearing the surfaces apart did not restore it. The tissues of the prepuce were all thickened immensely, so that it must have measured three or four times its normal thickness.

The result of the circumcision was complete relief of pain and the difficult urination. He can retract the foreskin so as to uncover the glans fully; but, as was to be expected, the thickening and induration resulting from such long-continued (forty-five years) inflammatory action did not undergo much alteration. What was left of the prepuce yet remains, after eighteen months, much indurated and thickened.

The new growth spoken of above was believed, by several medical men who saw it, to be an epithelioma. It has not reappeared, though it is to be apprehended that even yet the same conditions of chronic irritation and inflammation will reproduce in this diseased tissue another and a new epithelial growth.

TOLLESBORO, KY.

TYMPANITES IN HYSTERIA.—Prof. Talma relates some cases of tympanites in hysteria. He believed it due to contraction of the diaphragm. The size of the abdomen was considerably decreased during sleep, and under chloroform it became normal. Hiccough was a cause of great distress in one case, it being greatly increased whenever any of the students approached her. *Canada Lancet.*

Reviews and Bibliography.

Diseases of the Joints. By HOWARD MARSH, F. R. C. S., Senior Assistant Surgeon to St. Bartholomew's Hospital, London. With sixty-four illustrations and a colored plate. 12mo, pp. 461. Philadelphia: Lea Brothers & Co. 1886.

This work of Dr. Marsh is one of the excellent serials of clinical manuals now emanating from the press of the Churchills, and being reprinted by the Leas in this country.

Pathology is not largely dealt with, as that subject has grown to too great proportions to be embraced in a small volume along with diagnosis and treatment. The work presents a clearly written and fairly complete conspectus of the diagnosis and treatment, as well as the etiology of the various diseases to which the joints are liable, and forms an interesting as well as useful volume.

Transactions of the American Ophthalmological Society. Twenty-second annual meeting, held at New London, Conn., July, 1886. Published by the Society. Boston, 1886.

This volume of the Transactions contains many interesting papers, a few of which are here selected for comment.

A paper of much practical value is by Dr. C. S. Bull, of New York, on An Analysis of One Hundred and Three Cases of Exudative Neuro-retinitis associated with Chronic Bright's Disease. In all these cases a careful examination of the urine was made, and a thorough physical examination of the patient. He examined with reference to the age and sex of the patient as well as the period of duration of retinal inflammation as indicated by the symptoms complained of by the patient, and the duration of the renal disease as shown by the occurrence of symptoms referable to these organs.

As bearing on the duration of life, he says he has been impressed very strongly with the extremely unfavorable prognosis to be made, and with the comparatively short lease of life which these patients possess. Of the one hundred and three cases examined, extending over a period of thirteen years and six months, eighty-six have died, seventeen are still living. Of the eighty-six who died, fifty-seven died within one year. Of the seventeen living, fourteen have come under observation during the past six months. Thus more than fifty per cent died within one year, showing a fatality for a chronic disease that is unusually rapid.

In the discussion that followed it seemed to be the prevailing opinion that the so-called stellate exudative retinitis is sometimes seen in other than cases of Bright's disease, and that the exudation occurs in about sixty per cent of all cases of this disease.

Dr. H. Knapp made some remarks on pyogenic micro-organisms, and, by a series of experiments on rabbits exhibited to the Society, demonstrated the dependence of suppuration in certain cases on the presence of these organisms. He showed two rabbits whose eyes he had operated on for cataract the day before. The left eye in each was operated upon with clean instruments, the right with instruments contaminated with the micro-organism. The left eye was free from inflammation, while the right was in the stage of destructive inflammation.

A general discussion followed these demonstrations, in which all agreed that in operations on the eye better results are obtained by following some form of antisepsis, the greatest objection to the use of antiseptic drugs being their effect upon the edge of the instrument. Eye instruments should be very sharp, and most antiseptic solutions dulled their edges.

Dr. J. A. Andrews contributes a paper on The Electric Light as an Illuminator, and the effect of strong light on the eye. The popular idea is prevalent that the electric light is injurious to the eye. Dr. Andrews shows very plainly the error of this opinion, and maintains, from a series of examinations, that the incandescent light of Edison, because of its steadiness, power, and composition, is safe, and occupies at present the first position as a means of artificial illumination.

The indication and application of hot water in certain eye diseases has always interested us. A few years ago we tried to formulate some rules to govern us in the choice of water, hot or cold, but the seeming benefit gained in a certain disease in one patient would fail in another; hence the difficulty. A paper read by Dr. B. E. Fryer urges the use of water, hot or very hot, in some of the corneal and conjunctival inflammations. Whether it acts by its constringing action on the blood-vessels of the part, or its power of destroying the specific germ contained in the secretions, the author does not state. Probably the former is the most rational *modus operandi*.

The volume makes a very creditable showing for the Society, and should be read carefully by all interested in the progress of this branch in our own country.

J. M. R.

The Therapeutical Drinking of Hot Water, its Origin and Use. By EPHRAIM CUTTER, M.D., New York. Pages, 34.

This little volume bears the impress of having been written in a spirit of medical dilletanteism, with an aim of presenting claims of priority and credit for work much more prominent than the desire of impartially establishing truth.

We are told that nothing is made in vain, and therefore we take it for granted that this book has its worth, though we don't happen just now to be in a frame of mind to appreciate it.

Pocket Medical Formulary, arranged Therapeutically. By ALEXANDER HAZARD, M. D., and BERNARD M. GOLDBERG, M. D. Revised and enlarged by ABRAHAM S. GERHARD, A.M., M.D. Containing Formulas and Doses of Hypodermic Medication; and Poisons, their Symptoms, Antidotes, and Treatment. 16mo, pp. 333. Philadelphia: Collins, printer. Price, $2.50.

As a book of ready reference we have seen nothing of this class that equals it in value.

Granular Lids and Contagious Diseases of the Eye. By W. F. MITTENDORF, M. D., Ophthalmic Surgeon to the New York Eye and Ear Infirmary, etc. Pages, 110. Leisure-hour Series. Detroit: George. S. Davis. 1886.

The importance of an early diagnosis of contagious diseases of the eye must be evident to every one. Thousands of children suffer from conjunctival affections when their existence is not known to those in charge. This book aims to supply to every physician the means of an early diagnosis and treatment of these cases, in order that the irreparable injuries often due to delay may be guarded against in time.

Bright's Disease and Allied Affections of the Kidneys. By CHAS. W. PURDY, M.D. (Queen's Univ.), Professor of Genito-urinary and Renal Disease in the Chicago Polyclinic, etc. With new and original illustrations. Pages, vi-295. Philadelphia: Lea Brothers & Co.

This is a clearly written and decidedly entertaining book. While it is not by any means as full on several points as a work of the kind ought to be, not being aided by illustration to the extent we think necessary to a complete work on this subject, it will bear favorable comparison with other books of its class before the public.

On the Determination of the Necessity for Wearing Glasses. By D. B. ST. JOHN ROOSA, M.D. Pages, 73. Leisure Library. Detroit: George S. Davis. 1887.

The object of this little book is to serve as a guide to the general practitioner in determining whether a given patient does or does not require glasses, either to aid the vision or to relieve a symptom that may not be directly referred to the eye. That it is by St. John Roosa is a sufficient guarantee of its scientific worth.

Lecons sur les Maladies du Systeme Nerveux, faites a la Salpetriere. Par Professeur J. M. CHARCOT, M. D., etc. Tome troisieme. Paris. Pages, 377.

The most receptive and perhaps the most vivacious people who have ever existed are the French. Demonstrativeness is a large part of the French nature. To see and to be seen, to know and to be known, to honor and to be honored, are uncontrollable yearnings of the French heart. At the same time their powers of close observation are nowhere surpassed, and the French mind disputes the prize for profound investigation with the foremost. Such a man is Charcot. Given such a people as the French, such an intellect as Charcot's, and the opportu nities of the Salpêtrière, and it hardly remains to be said that, in the lessons to be drawn from observation of the whole field of nervous maladies and unique idiosyncrasies, this work holds an undisputed lead. So far as it has gone it is not so encyclopedic in its character as some others, but for vividness of portrayal, uniqueness and richness of discovery, originality, and trustworthness of observation, it excels. Of course no neurologist can afford to be without the best work of Charcot.

Transactions of the Massachusetts Medico-legal Society. Vol. I, No. 9, 1886. Barton, Capples, Upham & Co.

The Source of the Mississippi. Reprinted from Science (December 24, 1886). Ivison, Blakeman, Taylor & Co., New York and Chicago.

Common Errors, Theoretical and Practical, Relating to Insanity. By Orpheus Everts, M. D., Medical Superintendent of the Cincinnati Sanitarium. Reprint.

A Novel Procedure for the Removal of Subglottic Laryngeal Growths, with the report of an illustrative case. By William Chapman Jarvis, M. D. New York. Reprint.

Foreign Bodies in the Bladder. By A. M. Cartledge, M. D., Professor of the Principles and Practice of Surgery and Clinical Surgery in the Hospital Medical College of Medicine. Reprint.

Massage as a Mode of Treatment. By William Murrell, M. D., F. R. C. P., Lecturer on Pharmacology and Therapeutics at the Westminster Hospital, London. Second edition. 12mo; pp. 100; boards. Philadelphia: P. Blakiston, Son & Co. 1887. Price, $1.25.

Diseases of Women, a hand-book for physicians and students. By Dr. F. Winckel, Professor of Gynecology, etc., Royal University of Munich. The translation edited by Theophilus Parvin, M. D. 8vo; pp. 700; engravings, 132. Philadelphia: P. Blakiston, Son & Co. 1887. Price, cloth, $3; leather, $3.50.

Nervous Diseases and their Diagnosis: A treatise upon the phenomena produced by diseases of the nervous system, with especial reference to the recognition of their causes. By H. C. Wood, M. D., LL. D., Member of the National Academy of Science. 8vo; cloth. Philadelphia: J. B. Lippincott Company. 1887. Price, $4.

Ueber Werking therapeutische Werth und Gebrauch des neuen Karlsbader Quellsaltzes nebst dessen Beziehung zum Karlsbader. Thermalwasser. Von Dr. W. Jaworski, of Cracow. Vienna. 1886.

A Compend of Obstetrics. By Henry G. Landis, A. M., M. D, late Professor of Obstetrics and Diseases of Women in Starling Medical College. Third edition; new illustrations. Quiz Compends, No. 5. 12mo; pp. 118. Philadelphia: P. Blakiston, Son & Co. 1887.

A Compend of Electricity and its Medical and Surgical Uses. By Charles F. Mason, M. D., Assistant Surgeon, United States Army. With an Introduction by Charles H. May, M. D. Medical Briefs, No. 3. 12mo; cloth; pp. 108. Philadelphia: P. Blakiston, Son & Co. 1887. Price, $1.

The Medical Standard is the name of a new journal, published by G. P. Engelhard & Co., of Chicago.

It is edited impersonally and under the same business management as the Western Druggist, which, in its own province, has the largest circulation in the world. It is needless to say that the Standard will make itself felt.

Dr. William A. Hammond will open the April Popular Science Monthly with an able article entitled "Brain-forcing in Childhood." The paper gives a vivid picture of the evils of the book-cramming process, now so common in both public and private schools, and also contains a strong plea for fewer studies, more direct contacts with nature, and less of the intervention of books.

Hand-book of Materia Medica. Pharmacy, and Therapeutics, including physiological action of drugs, the special therapeutics of disease, official and extemporaneous pharmacy, and minute directions for prescription writing. By Samuel O. L. Potter, M. A., M. D., Professor of the Theory and Practice of Medicine in the Cooper Medical College of San Francisco, Cal. 12mo; cloth; pp. 828. Philadelphia: P. Blakiston, Son & Co. 1887. Price, $3.

The Foreign Medical Press is the title of a new weekly journal, published in New York, the first number of which is made up of fourteen pages of reading matter, consisting of abstracts from foreign publications. Mr. J. L. Stern is the editor. It is announced that the number of pages will be increased from time to time, as growing support warrants it, and that a liberal support by the profession will insure a reduction in the price (now $20 a year).

Foreign Correspondence.

PARIS LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

M. Alglave, a well-known chemist, has lately delivered a most interesting lecture before a crowded audience, in the large amphitheater of the Sorbonne, on the evil effects of alcohol. He commenced with the statement, that of one hundred individuals affected with mental alienation, forty were alcoholized. Half of the assassins were alcoholics or the sons of alcoholics. Delirium tremens kills two thousand two hundred persons yearly. Phthisis, often consecutive to alcoholism, commits greater ravages than cholera. After having drawn this melancholy picture the lecturer put the question: "Has drunkenness really increased?" To which he answered himself, "No, but the liquors have changed." Formerly people got drunk only with ethylic alcohol extracted from wine, now it is with amylic alcohol obtained by distillation from potatoes, beet root, rice, Indian corn, etc., that is to say, alcohols containing principles eminently toxic, which rapidly poison the subject submitted to experiment, and which alcohols are, by a sort of irony, termed "superior alcohols." To poison an animal with pure ethylic alcohol it requires as many times seven grams, seventy five centigrams, as there are kilograms in its weight; whereas, with pure amylic alcohol, it would not take more than one gram, ten centigrams, per kilogram. In other words, supposing a man weighing eighty kilograms, it would require six hundred and twenty grams of ethylic alcohol to kill him, while with amylic alcohol it would take only eighty-eight grams. These figures prove that people now become alcoholic with seven times less liquor than formerly. To render these figures still more eloquent, and to convince his audience of the enormous difference there is between what is termed superior alcohol and ethylic alcohol, the lecturer performed some experiments in their presence, by injecting into the veins of living animals the two kinds of alcohols, in order that the audience might be able to witness the comparative results, and to draw their logical deductions of their terrible effects upon man. Two guinea-pigs were the first victims. The one received a feeble dose of ethylic alcohol, the other an equivalent dose of amylic alcohol. This operation, observed the lecturer, consists in putting (a little more rapidly, it is true,) in the body of these animals that which a million of men put in their bodies each day in Paris. The guinea-pig intoxicated with ethylic acid remained quite lively, and seemed to be quite gay. The guinea-pig intoxicated with amylic alcohol, on the contrary, appeared as if struck down by lightning. The paws refused to move almost immediately after, and the animal died in a few minutes. The experiment renewed on dogs gave the same results, that is to say, vivacity of movements persisting in the dog treated with ethylic alcohol, and pronounced stupor in the dog treated with amylic alcohol. A dog injected with "absinthe," less than one centimeter cube, died after an attack of furious delirium. The remedy proposed by M. Alglave for this state of things is to ordain that only ethylic alcohol should be delivered for consumption, but how this is to be carried into effect is a problem most difficult to solve, as it is most difficult to distinguish one alcohol from another, for it requires the most delicate tests, which would not be within the reach of wine merchants in general. Thanks to chemistry, the art of simulating products has realized astonishing results, and Germany is credited with being accomplished in the art of falsifications. From that country is manufactured and exported to all parts of the world artificial essences, extremely concentrated, by the aid of which one can obtain any liquor whatsoever. The lecturer had on his table a series of tubes containing samples of these essences, and a series of phials in which a few drops of these essences were mixed up with two hundred times their weight of alcohol. In this way he manufactured on the spot curacao, marasquin, kirsch, benedictine, cassis, chartreuse, white and yellow, rum of the first quality and of inferior quality, anisette, Holland gin, noyaux liqueur, grenadine, etc. These were handed round to the audience, who could not distinguish them from the genuine article, and yet gallons of these liquors are daily consumed all over the world. The audience were half terror stricken and half incredulous at the idea of swallowing these mixtures, which chemistry has brought to such perfection. It has been asked whether the essences employed to flavor different liquors were toxic in themselves. The lecturer stated that as yet no complete analyses have been made, as, their manufacture being confined to a secret corporation, there is great difficulty in procuring samples. There is, however, one thing certain, and that is, they are now universally employed and that they serve to disguise the "superior alcohols," which are known to possess the most toxic properties. M. Alglave concluded his lecture by observing that as the means to detect these adulterations are at present so inefficient, the State ought to take the matter in hand, and as it exercises a severe supervision against any fraud with regard to the purity of gold and silver, so it ought to have a severe supervision over the manufacture of alcohol, which constitutes no mean part in the alimentation of the population of this country, and consequently interests the public health in a very great measure.

A rather interesting discussion took place lately at the Academy of Medicine, as to the desirability of allowing the practice of "salicylage," or the addition of salicylic acid to various alimentary substances, solid or liquid, employed for their preservation. The subject was confided to a commission, the conclusions of which were that it should not be employed, even in the most minute doses, as it was a substance that produced its toxic effects in the most insidious manner. To authorize such a practice would be to encourage sophistication. Professor Brouardel most energetically supported the conclusions of the commission, as he had seen several accidents occurring by the ingestion of salicylic acid, or its derivatives. He said that it was most dangerous in atheromatous subjects, in old people in whom the kidneys did not act well. He would therefore recommend its proscription in food, and that it be used only as a therapeutic agent, to which the Academy assented.

In a pamphlet published by M. Gagnaire, a horticulturist of some note, and read before the Horticultural Society of Paris, the author recommends that land owners, with the view of attenuating the ill effects of the agricultural crisis, should extract alcohol, by distillation, from all kinds of fruit which are allowed to go to waste. Alcohol thus obtained, says the author, is far superior and less harmful than that obtained from potatoes, beet-root, etc.

Two most distinguished physicians of the Paris Faculty have been removed from among us by death. Dr. Jean Theophile Gallard, a well-known gynecologist, died on the 31st January, from diabetes. He was born on February 10, 1828. He began his medical studies at an early age, and was promoted to *Interne* in 1850, when he was awarded a gold medal for his brilliant examination. He had shown an early predilection for the study of gynecology, and when he went up for the doctorate, in 1855, he chose for the subject of his thesis, Peri-uterine Phlegmone and its Treatment, which he founded on observations taken by him in the wards of Valleix, whose *Interne* he had been. He was soon appointed hospital physician, and whatever hospital he was attached to he showed his predilection for gynecology, in which branch he may be considered a specialist. On his appointment to the Hôtel Dieu, only a short time ago, he delivered a most interesting lecture on clinical gynecology, which, alas! was his last, as his health failed him, and he was carried off by diabetic coma in a few days. He was a Member of the Academy of Medicine, and of the Medico-Legal Society of Paris, of which he was one of the founders. He was also officer of the Legion of Honor.

Professor Béclard, Dean of the Faculty of Medicine, of Paris, died on the 8th instant, in the seventieth year of his age, after only a few days' illness, from an attack of pneumonia. He was Professor of Physiology at the Paris Faculty, Permanent Secretary of the Academy of Medicine, and Commander of the Legion of Honor.

PARIS, February 11, 1887.

THE NEW YORK BOARD OF HEALTH is asked by one hundred petitioners to appoint six women on the corps of sanitary inspectors.

Translations.

Coto and Cotoine.—The favorable results which Von Gietl, Pribrum, and Albertorn reported from the employment of coto bark and its derivatives, induced Huchard to undertake experiments with the drug in diarrhea arising from the most diverse causes.

As, according to the experience of Burkhardt, the drug causes gastric pains and even vomiting, he employed the active principle, cotoine, discovered by Jobst, which is soluble in warm water, ether, and alcohol. In doses of two grains, given three times a day, it was useful in a number of cases of catarrhal and even tubercular enteritis.

Of six cases of the latter character, of which three had stubbornly resisted every other therapeutic measure, only two were treated without success.—*Deutsche Med. Zeitung.*

Washing the Organism in Cases of Poisoning.—Prof. C. Sanquirico, of Siena, relying on certain known physiological and pathological principles, for instance: (1) That injurious as well as non-injurious substances taken up in the organism are eliminated through the kidneys. (2) That the vascular system possesses the capacity, without local or general changes, to free itself from fluids which have been injected into it to the quantity of not more than eight per cent of the body weight. (3) That the injection of such indifferent fluids effects a considerable increase of blood-pressure, which immediately ceases when the elimination of the excess of fluid in the circulation begins, and which occurs also in the course of the natural secretion through the kidneys. Prof. S. has made a number of experiments to determine whether animals fatally poisoned can be rescued from death when a rapid elimination of the poison through the kidneys is effected in the way referred to.

He obtained his first favorable result in poisoning with alcohol and strychnine in 1885. Since then he has made new experiments with chloral hydrate and nitrate of aconitine, and always with good results.

The following is his method of operation. He first ascertains the minimum quantity of the poison that is fatal to the animals experimented on. The deadly dose bears generally a fixed relation to the weight of the animal. As soon as he has effected the poisoning with an ascertained amount of poison (always more than the minimum required), he injects into the jugular vein a two-thirds-of-one-per-cent solution of chloride of sodium to the extent of eight per cent of the weight of the animal selected. The infusion is made on the first appearance of symptoms of poisoning in case of poisons that work slowly (alcohol, chloral); but when the poison is rapidly fatal the injection is made immediately after administering the poison. Strychnine and aconitine were given in these cases.

The results of these efforts were always the same. An abundant discharge of urine set in after a longer or shorter period, and the animal was rescued from certain death. The increased discharge of urine did not take place in all cases, and in these the effects of the poison were not mitigated. They recovered, however, when the urine at first appeared sparingly, and then abundantly. On testing the urine of the animals poisoned and rescued in this way, the poison which had been employed was uniformly discovered.

In poisoning with curara, morphine, and hypnone uniformly negative results were obtained, and no trace of discharge of urine occurred, even when the quantity of the solution injected amounted to ten per cent of the body weight of the animal.—*Ibid.*

Dr. Monnet has been making some experimental and clinical investigations of the properties of the kola nut, a species of *malvacea*, an article of trade used as a relish in Africa, and has come to the following conclusions:

Kola, on account of the caffeine it contains, is a tonic for the heart, raising its beat and increasing its power. In the second stage of its action it regulates and raises the pulse; the pulsations become more voluminous and less numerous; diuresis increases; and upon this ground kola promises to be of value in diseases of the heart with dropsy. Poisonous doses of the substance cripple striped muscular fiber. Kola is a preserver of tissue, perhaps through a special influence on the nervous system. It is a powerful tonic, and its use is indicated in anemia, in chronic debility, and in convalescence from severe diseases. Nutrition is promoted by it, and the most stubborn disgust for food disappears under its influence, and finally it is of considerable value in diarrhea.—*Ibid.*

PASSAGE OF THREE TEASPOONS THROUGH THE ALIMENTARY CANAL.—A woman, with intermittent paroxysms of mania of suicidal tendency, swallowed three teaspoons. Their passage through the intestines produced symptoms of peritonitis, which rapidly passed away, and a diarrhea that ceased upon the passage of the spoons. These were exactly applied to one another, and surrounded with indurated fecal matter which presented the form of a cylinder.—*Rivista Internazionale.*

Abstracts and Selections.

REFLEX GASTRIC NEUROSES DUE TO UTERINE DISEASE.—G. Braun, in *Wien. Medicin. Woch.*, emphasizes the intimate sympathetic connection existing between the stomach, in particular, and diseases of the female genital organs. Reflex neuroses, indeed, having their outcome from the sexual system, have been time and again noted by specialists in the various branches of medicine. From the side of the uterus it is well known that the various displacements and distortions have a reflex influence on the nervous system. The same holds true of peri-uterine exudations and lacerations of the cervix. The necessity of careful examination of every organ of the body before making a diagnosis as to the special cause of neurotic symptoms can not be too strongly impressed on the general practitioner as well as on the specialist. Braun reports a number of interesting cases in his paper which prove conclusively the dependence of functional gastric derangement on disease of the uterus. In the first case, the patient had been treated for a number of months by various gentlemen for chronic gastric catarrh without avail. Finally she consulted Braun, who found simply an abnormal mobility of the uterus. For the relief of this he inserted a Braun-Hodge pessary, and the neurotic symptoms disappeared. In a second case, almost continuous vomiting had existed for nearly two years, and the patient had been subjected to varied medication without relief. On examination, Braun found a lacerated cervix, repaired the rent, and cured the patient of her neurosis. In a third case, vomiting was a symptom which had lasted for a number of months, whenever the patient assumed the erect position. The uterus was found heavy, subinvoluted, and sagging downward. Pessaries, rest in bed, the hot douche, were tried without much benefit, when finally Braun amputated the vaginal portion of the cervix. As the result of the operation, the depth of the uterus decreased from five to four inches, and on being discharged the neurosis had disappeared.

These cases are very significant, although, doubtless, the majority of practitioners have met with the like. We believe we are right in the statement that the connection between uterus and stomach, as an explanation of neuroses, is generally overlooked. In this journal for November, 1884, a striking case of reflex spinal neuroses will be found reported by Mundé. The patient had been bed ridden for about five years on account of paralysis of the lower limbs. She was but twenty-five years of age, and eminent specialists in neurology had exhausted their efforts for her relief. Although there was no special indication of organic disease of the uterus or appendages, and the diagnosis of chronic myelitis in the lumbar region of the cord had been made, the patient insisted so strongly on oöphorectomy as a last resort, that Mundé performed it, with the result of restoring the patient to health and usefulness. She is, to-day, perfectly well and active. We recall this case here, because it strikingly indicates what form neuroses may assume, and what unexpected results a forlorn hope may sometimes yield.—*American Journal of Obstetrics.*

ABSORPTION FROM THE MUCOUS MEMBRANE OF THE URINARY BLADDER.—The series of carefully conducted experiments, recently made by Dr. Herbert Ashdown to determine whether absorption through the mucous membrane of the bladder occurred, seem clearly to establish the fact, so often disputed, that absorption does take place. Dr. A. states: (1) That absorption of a very large series of chemical substances does take place from the mucous membrane of the urinary bladder when in a perfectly healthy condition; (2) that the urinary constituents themselves—those substances eliminated by the kidney, as effete products of the system—are absorbed from the bladder in varying productions, this applying more especially to the water and urea, but also, though to a less extent, to the inorganic solids; (3) that the degree of distension of the bladder plays a most important part in increasing or diminishing the rapidity of such absorption; (4) that regular rhythmical contractions take place in the muscular wall of the bladder; that these contractions are largely influenced by the degree of distension of the bladder, being most marked with a moderate amount of distension of the viscus, and but feebly marked in slightly distended or in overdistended conditions; and that the character of these contractions is largely affected by the nature of the fluid contained in the bladder.—*British Medical Journal.*

Hypodermatic Injection of Atropine in Hemoptysis.—Hausmann advises this method of treatment in desperate cases of hemoptysis when the use of other remedies has failed. He reports three cases which illustrate this point. One case had suffered from twelve severe hemorrhages in six hours. After the thirteenth the writer injected one twenty-fifth of a grain of sulphate of atropine; the hemorrhage did not recur. A similar result was obtained with a lady, in whose case ergotine and preparations of turpentine had failed.

In a third case of persistent hemorrhage through two winters, two injections, of one twenty-fifth of a grain each, sufficed to check them.—*Revue Générale de Clinique et de Thérapeutique.*

On Infant Feeding.—William Berry, M. R. C. S., contributes to the Liverpool Medico-Chirurgical Journal a paper which contains his own experience and that of several other authorities in the important matter of artificial feeding of infants:

I think, he says, we shall all be agreed on one point, namely, that when it is desirable from any cause that a child should be brought up by *hand-feeding* instead of by its mother, its food should be as nearly as possible to that of mother's milk. Now, to get it like this should be our object, but it is in the method of attaining this that most of us will differ. I have been in the habit for some time of ordering cow's milk largely diluted and boiled, and the thin film removed from the top after it has cooled somewhat; and I came to adopt this method of procedure, not from chemical examination, but by observing what proportions of milk and water suited the delicate digestive powers of the infant.

I usually recommend the milk to be obtained from one cow, and from birth up to the age of *three* months recommend the following proportions: Cow's milk, 1 part; water, 3 parts. Mix and boil, then pour into a clean vessel, add one teaspoonful of sugar of milk or two pieces of loaf sugar to the pint, and a little portion of salt. When it has cooled, the film to be taken from the top, and the bottle nearly filled. At *three months* old the proportions should be *one* of milk to *two* of water, and this gradually increased till, the child at *six months*, the proportion of milk and water are equal. Now comes the question: "Is the proportion of milk to water too small?" My answer would be, to those who differ from me, that a child will thrive on this diet, and it will rarely disagree if given by a spoon or by the bottle, providing the bottle is cleansed each time before use.

Some medical men advocate milk and water (pure and simple), but this is not like human milk, therefore I prefer to have this boiled, so as to remove the coagulated portion, and then add sugar of milk.

Mr. Brady states that it has been proved "more than once that the milk taken from a number of cows for any length of time, say six months, is of more uniform quality than that procured from one."

Well, I have not seen the proof of it, yet I am willing to admit that there is some reason in this; at the same time, I do not think Mr. Brady would recommend the milk of a number of mothers to be mixed, or recommend a child to be suckled by a number of wet nurses.

The one cow's milk is liable to variation from the time of calving up to the period of again becoming dry, but the same would apply to a number of cows, and so the mixture would vary also, and the same applies to mother's milk. The composition of human milk varies from the period of parturition up to the time of weaning; it also varies according to the food and drink taken, and so also does cow's milk. It is therefore for the following reasons that I recommend the milk of one cow: (1) Usually the best cow in the dairy is selected; (2) more attention is paid to her feeding; and (3) the milk is less likely to be contaminated by the addition of impure water. I am not singular in advocating this plan, for I believe it is pretty generally adopted where it is possible to do so. Of course the greatest attention should be paid to the milk being *fresh*, and this, no doubt, is more important than having it from one cow. Dr. Armand Semple says: "The next important step is to select the milk. The principal qualification—I was about to say the only one of importance—is that it should be fresh."

Although fresh milk can be got to our dairies readily by rail, the worst thing that can happen to milk is the churning from jolting in its transit, and thus it becomes acid, and we get a train of injurious effects following its use. He recommends the milk to be tested with litmus paper before using it. He recommends also that the dairy should be visited and the hygienic surroundings of the cows inspected, and states that "some cows are noted for their milk agreeing with infants. and, should the farm from which your milk supply comes have such a one, try and secure that for your own use."

Mr. Brady tells us that many mothers and nurses are in the habit of frequently overfeeding children, especially when the bottle is used; so that, if you do not limit the quantity, the result is that every time the child cries the bottle is stuffed into its mouth. He then alleges that if this weak compound (one part milk and three parts water) be used, and the stomach overloaded, no wonder the child vomits green acid water and small curd. Now, the diluted milk which I have been in the habit of recommending is for the purpose of preventing both overloading and overfeeding; we wish to give the child something which will be readily digested. Overloading is prevented by what Mr. Brady appears to be in the habit of recommending, for he goes on to say that, "I have always been in the habit—and I never yet had a case that gave me trouble when my advice was adhered to—of recommending that an infant's food should consist of equal parts of milk and water for the first three months after birth, two ounces to be given in the course of two hours, any portion unused at the end of that time thrown away and a fresh supply made, but in no case is more than the measured quantity to be given. After three months the strength may be gradually increased till it is three parts of milk at six months, and, as the child grows and becomes able to assimilate more food, the quantity may be increased to three or four ounces in two hours; but in no case is the double quantity or any portion of it to be given during the time; if the child cry, he wants nursing, not feeding. I know of a number of children brought up in this way who, for the first twelve months of their lives, have scarcely required a teaspoonful of medicine."

Now this is sensible advice. and I have no doubt it will act, especially if the milk and water be boiled, and the thin film removed and a little sugar added.

As I have previously mentioned, I advocated diluted milk (1 to 3) boiled, and sugar or sugar of milk added, and the coagulated caseine removed. I am sure that children do retain this, and, what is more, thrive on it.

The bottle should always be cleaned before the next meal is put into it. I do not limit the meal to two ounces, but admit if I did so the proportions of water to milk would be too great. Attention to the preparation of the food is the secret of the success which should attend hand-feeding. Dr. Semple says: "If a child is to be entirely bottle-fed, it can be fed at first every *two hours*, and then it is well to increase the amount of water to a little more than one half, gradually increasing the quantity of the milk as the digestion improves and the child gets stronger."

The caseine of mother's milk forms a soluble compound and not a hard curd, unless there is excessive acidity of the stomach, and it is owing to the small proportion of caseine which ass's milk contains that renders it more easily assimilated by the delicate stomach of the child.

Dr. Benson Baker says: "Milk with proportionately less nutritive matter is better adapted to sustain the child in vigorous health than when given in a richer and more concentrated form. It is not uncommon to find children that do not progress on milk and water. It is then customary to lessen the amount of water and increase the milk, from the idea that the food is too poor. As a rule, no proceeding could be more disastrous to the child. If the milk had been further diluted, the cause of the complaint, viz., the inability to digest the concentrated solids, would have been removed, and the child would consequently have been restored. The reason why human milk agrees so much better than other milk, is because it is so much diluted and the cheesy substance more soluble. It is on this account that ass's milk succeeds so well. For all ordinary feeding cow's milk answers very well, provided that care be taken to make it as nearly like human milk as possible. Human milk contains little more than half the quantity of cheesy matter that is found in cow's milk, hence the necessity of freely diluting it with water. Cow's milk should be mixed with half its bulk of pure, tepid water. The following proportions of added ingredients approximate the proportions and properties of human milk, and generally answer well (sometimes a little more water is required during the first few weeks of infant life): Cow's milk, half a pint; water, the same quantity; a small teaspoonful, or sixty grains, of sugar of milk, and two grains of phosphate of lime; and the addition of two teaspoonfuls of cream if the quality of milk be good; but when the milk is poor or skimmed, or such as is known as London milk, then the quantity of cream must be at least doubled. *Cow's milk thus modified is rendered very nearly like human milk, both in the proportion of its constituents and its solubility.*"

Mr. Edmund Owen says: "For babies, cow's milk, which should be always fresh, should be mixed with an equal or *even greater bulk* of warm water, in which a lump of white suger and a pinch of salt had been dissolved; the fresh milk was an excellent antiscorbutic, and was therefore always needed. Often, when he had been assured that cow's milk could not be retained by the infant stomach, he had been able to demonstrate to the contrary by mixing even as much as double the quantity of water with it. It summer lime-water might be added to the mixture."

The "cream mixture," originally suggested by Biedert, consists of varying proportions of cream, water, milk, and sugar, the amount of milk varying according to the digestive powers of the infant. For a newly-born child, or one suffering from gastro-intestinal catarrh, no milk is added, the cream supplying sufficient nutriment.

Dr. Meigs' food for infants consists of two parts of cream, one of milk, two of lime-water, and three parts of a solution of sugar of milk of the strength of 17¾ drams to the pint of water. The milk to be used should be good ordinary cow's milk. The quantity of this food taken by a new-born infant should be two or three fluid ounces every two hours. Get five or six packages of milk-sugar, containing 17¾ drams each, dissolve in a pint of water, and each time the child is to be fed let there be mixed together, and then warmed, three tablespoonfuls of the sugar solution, two of lime-water, one of cream, and one of milk. This makes about a gill, and as much of this as the child does not take should be thrown out, and a fresh mixture made for the next feeding.

The following is Dr. Franklin's method of preparing artificial human milk: "The preparation of this artificial milk is accomplished in about ten minutes, and it will be gladly undertaken by even 'the lazy nurse,' for the sake of the better health and rest acquired by the baby thus nourished. To prepare it, allow half a pint of new milk to stand for about twelve hours, remove the cream, and add it to one pint of new milk as fresh as possible. Into the half pint of skim milk put a piece of rennet about an inch square, to be obtained of the butcher. Set the vessel in warm water till the milk is fully curdled, which requires from five to fifteen minutes, the rennet being removed as soon as curdling commences, and put into an egg-cup for future use, as it can be employed daily for a month or two. Break up the curd thoroughly, and separate the whole of the whey, which should be rapidly heated to boiling, when a little more caseine separates, and may be removed by straining; one hundred and sixty-five grains (about two teaspoonfuls) of powdered sugar to be dissolved in this hot whey, and the sweetened fluid added to the pint of new milk (and cream). It is then ready for use."—*Liverpool Medico-Chirurgical Journal.*

Infant Feeding; the Early Use of Farinaceous Foods with Milk.—Dr. Thurstan believes the objections to the use of these substances in young infants are more theoretical than real. They should be used with cow's milk, and are superior to all other substances —lime-water, barley-gruel, etc.—for preventing the coagulation of the milk in firm curds. This is the chief end they subserve, and it does not matter much which one is used. A case of a premature child is cited, which began to gain immediately upon this plan being followed out, where the usual regulation dietetic rules had signally failed, and it was wasting steadily. *Lancet.*

Acute Laryngitis in Children.—Dr. Arthur Foxwell contributes to the Birmingham Medical Review a most valuable article on the above subject, from which we take the following:

In dealing with acute laryngitis, as it affects children only, there are three varieties where diagnosis of the true condition is extremely difficult and where, unfortunately, this is of very great practical importance. These are, (1) That arising in diphtheria, where the faucial lesion is but slightly marked and the laryngeal symptoms arise early; (2) Catarrhal laryngitis, arising at the outset of an attack of catarrh or morbilli; (3) Membranous laryngitis, arising in the same manner as the catarrhal form. In attempting their diagnosis I will, to avoid repetition, state the diagnostic points of positive value only.

1. In the first variety the history is one of gradual onset, usually at least three or four days. "About Monday he began to mope," says the mother, "and went off his food." Yesterday the difficulty of breathing was first noticed; this was not then severe nor did it seem greatly to trouble the child, but the difficulty has steadily increased; on inquiry you may find he has mixed with one or two others, adults or children, who have suffered from sore throat. There is marked asthenia. You can hear but little air entering the bases of the lungs, yet there is no cyanosis nor strenuous effort to conquer the obstruction. The appearance of the face, and indeed the whole body, is one of gray pallor rather than lividity. The tongue is dry and brown, while the bowels have tended more to looseness than constipation. The pulse is small, of very low tension, and very little disturbance alters its rate of beat. Pyrexia there is none or but one degree or so. The urine has a thick cloud of albumen. The fauces, whether membrane exist on them or not, are but moderately inflamed, and there has been little or no history of painful swallowing.

2. The onset of laryngeal symptoms in catarrhal laryngitis is sudden and sthenic; the child has in no way ailed, or merely had a

slight cold; he has not been ill enough to keep in bed or away from school. These are the cases to which one is hurriedly called at night, for often the child wakes with a fit of crowing. Nearly always can you obtain from the mother, excited though she be, accurate information as to the hour or half-hour when dyspnea first arose. This may not be the first or second paroxysm, and you may be told that no symptoms of ill health existed in between. There may have been previous attacks long since; the parents or a brother or sister may have similarly suffered. The patient is evidently in the throes of an urgent sthenic disturbance; the countenance is flushed, the eyes staring and bloodshot. Though the quantity of air entering the lung bases may seem to your ear far larger than was the case in the child with diphtheria, yet are most strenuous efforts made to increase this amount; the lower ribs are violently drawn in, the nostrils dilated, the chin thrown out, and all the voluntary muscles brought to bear. Cyanosis is beginning, but yet pyrexia runs high and the pulse is full and bounding; later, it is true, when cyanosis is advanced, the temperature drops and the pulse becomes slow and asphyxial. The fauces are acutely inflamed, the tonsils being usually much swollen, and deglutition is extremely painful. The tongue is clean and too red, or toward the base is a thick white fur, while the fungiform papillæ are unduly prominent near the tip. The bowels are confined. In the urine is but a trace of albumen, and this may not be discovered till after two or three examinations.

3. This variety resembles the second in its sthenic nature and the suddenness of its onset. The history, too, may tell of a previous attack of catarrhal laryngitis, but this is unusual, although other members of the family may have so suffered. Whatever the previous history, the dyspnea having once arisen is *permanent and increasing*, though, unfortunately for diagnosis, varyingly so; on the other hand, its onset is more marked and its increase far more rapid than is the case in diphtheria. The conscious struggle for breath and life is here as painfully evident as in the catarrhal form, and the outward aspect of the sufferer much the same. No membrane, or but one or two small scraps, can be seen on the fauces, and these are acutely inflamed and swollen as in the second variety, while swallowing is even still more painful. Pulse, urine, tongue, and bowels are in a similar condition.

Finally, a few words as to treatment. In this regard I shall refer solely to the three varieties just mentioned. Decision in these cases is of the utmost value. Our aim is to snatch life from immediate extinction; that aim accomplished we have many resources by which to drag the child through the wreckage our somewhat heroic treatment has produced. Indeed, not much dragging will be needed; children speedily recoup themselves for injuries received if the action of these be only of short duration.

Speaking generally, my routine method of proceeding is as follows: At once on the child's admission I give an eighth of a grain of tartar emetic as a powder every ten minutes till free emesis occur; if after five doses there be no emesis, I double the doses at the same time that I double the interval between their administration; if after three quarter-grain doses thus given no emesis occur, I again double both dose and interval; but only twice in some thirty cases have I had to have recourse to doses of half a grain, and never have I had to give more than two of these. From the commencement, along with the tartar emetic I give a grain of calomel every four hours. Should the case be a very acute one, and not unless I place the child in a steam tent, and if necessary keep hot sponges applied externally over the larynx. If these fail I ask the surgeon to perform tracheotomy. A castor-oil enema should be given immediately on the patient's admission.

These are the measures I adopt for a fairly healthy child of two to four years; they are those which were practiced with such success by the preceding generation. In tartar emetic I have the greatest faith; it is a most certain antiphlogistic and one of very rapid action; I have never known it fail to produce emesis, a quality which greatly adds to its value in acute laryngitis, though in its emetic powers by no means reside its chief virtue, for great amelioration of symptoms often occur before this is produced. Like most drugs of rapid action, its power is very transitory, and therefore calomel, whose changes are brought about slowlier but are more persistent, should be united with it, and its administration continued for at least sixty hours, or at any rate till all attempts at pyrexia have ceased.

In this relation I value the drug ipecacuanha at a very low price. As an antiphlogistic I have never detected its power, and in acute laryngitis there is no time allowed for it to produce its special effect on the mucous membrane. It has emetic powers, but if emesis be the only end in view, sulphate of zinc has a simpler and more rapid action.

A steam tent and hot sponges constantly applied to the *pomum adami* are remedies of the utmost value; indeed, properly administered, there can be but few cases of non-membranous laryngitis which they will not relieve; but in private practice they are far less get-at-able than drugs, and there is often difficulty in instilling into the nurse's mind the difference between hot and *warm* sponges. They have one great drawback; they merely alleviate the local evil, they do not strike at the general inflammatory condition which is the root of it all as do the antimony and calomel. If once the urgent symptoms are combated by these I leave my patient devoid of anxiety, for relapses are rare and, when they come, but subacute. But the steam and sponges do not touch this constitutional state, they merely keep it from manifesting itself locally in the larynx; this, too, they keep in an enervating atmosphere so that it is more liable to catch cold again when removed from their gentle cosetting. It is always dangerous to take away a steam tent or the sponges at night, these should be removed on successive forenoons; even so, however, it is occasionally as tedious a proceeding as the removal of a tracheotomy tube.

In a sthenic case I never therefore omit the antimony, whether there be membrane or no; for I believe these prompt antiphlogistic measures go far to hinder the after-development of membrane in the bronchi and trachea, though I know some surgeons look with eye askance at these humble tributes of the physician, and long to bolster up the little fever-stricken child with iron and alcohol. This is because they believe that

> All diphtheria is asthenia,
> All membrane is diphtheria,
> Therefore all membrane is asthenia,

which is a syllogism in Barbara, the soundest of all syllogistic forms; but their minor premise I deny *in toto*, for I maintain most earnestly that all membrane is *not* diphtheria.

Abstraction of blood would be useful when the administration of antimony is the less easy performance of the two, or in those extreme cases where even antimony's action can not be tarried for; but my experience of it is practically nil, for I have tried it on but one case; there it proved beneficial.

Lastly, as to tracheotomy. I have never seen a case of non-membranous laryngitis which required this treatment, and it is hard for me to believe in its absolute necessity in this form.

Tracheotomy is no operation to be lightly undertaken; in its results at any rate it belongs to the major rather than the minor performances of surgery. I have done it myself only twice, but have seen it performed a good many times by others; and it is especially true of so exciting a procedure as this, that lookers on see most of the game. My experience has lain, too, in three large hospitals where there is no lack of many-handed assistants, and where the operator has the greatest of all requisites—the skill resulting from repeated performance—in a far higher degree than most practitioners in private can possess. In those cases where there is only one medical man and no nurse I believe it to be an operation of the greatest danger. If you give no anesthetic, you have all the risks of a terribly restless child held in the unsteady arms of a loving novice. If you act both as anesthetist and operator, I need say no more to any one who has given chloroform on these occasions. However, it is not tracheotomy itself, but its results which I so greatly dread. When is the tube to be removed and the hole closed? How long must the child run the increased risks, which such an opening gives, of pulmonary inflammation? When closure takes place granulations may still set up spasm or ruin the voice. In the case of non-membranous and membranous laryngitis due to chill you may have the whole bronchial tract in a state of acute inflammation and eager to produce a membranous exudation; the hole in the trachea lets in raw air, an irritating tube, and teasing feathers upon this sensitive tract, and may be gives the finishing touch to its membranous determination.

In non-diphtheritic membranous laryngitis, then, I put off tracheotomy as long as possible; I have no fear of unduly depressing my patient; every case of this variety which I have seen die after tracheotomy has died of asphyxia from descent of the membrane along the tubes, not of asthenia. Here, also, is tracheotomy a most hopeless expedient; I have only known one out of ten cases recover, and she, it is significant to observe, was *in extremis* from long dyspnea and collapse of lung before the operation was performed. Those that died usually got great relief from the operation, and for a few hours appeared well, played, and smiled, but in some twenty-four hours the deadly dyspnea resulting from blocked bronchi began to show itself and the child died convulsed and comatose. The interim of healthfulness shows, I think, that the end was not brought about by asthenia.

In diphtheria it is otherwise. Here is asthenia enough and to spare. The membrane, too, has far less tendency to descend, hence the result is by no means so hopeless. It is not the progress of the local disease, but the constitutional depression which one has most to dread. Nothing can be more exhausting than the strugglings of dyspnea. In diphtheria, then, I have tracheotomy done so soon as ever there be any serious laryngeal obstruction.

Ichthyol in Erysipelas.—In a late paper by Prof. von Nussbaum, of Munich, on Erysipelas, the author speaks very highly of the use of ichthyol, in the form of an ointment, made of equal parts of ichthyol and vaseline, to be painted over the whole erysipelatous area, then covered with ten-per-cent salicylic lint, and fixed with a gauze bandage. In erysipelas of the face, ichthyol collodion is to be preferred, and on the hairy scalp, ichthyol soap.

Clinical Observations on Erysipelas.—Dr. K. E. von Linden concludes a valuable paper on this subject as follows: The duration of erysipelas varies somewhat according to the point of origin, being shortest when it starts from the head or upper extremity and longest when from a lower extremity or the trunk. It lasts longer in weakly subjects and longest in those weaklings previously subjected to an operation. Erysipelas originating after operative procedures lasts longer than otherwise. Cicatricial tissue is more disposed to its development than normal skin; possibly the same holds for regions of skin exposed to mechanical pressure. Primary erysipelas is usually severer than recurring attacks, though after seven or eight months have elapsed this is no longer evident. Atmospheric conditions were not found to have any very marked influence. Alcoholic injections were found more useful than carbolic. Strict Listerism proved to be a great prophylactic.—*Annals of Surgery.*

The Influence of Alcohol on Digestion. Gluzinski has recently made a number of observations on the influence of alcohol on digestion, more especially the digestion of albumens, from which he has arrived at the following results: His observations were made on man, both in physiological and pathological conditions of the stomach, the stomach being emptied at stated intervals during the digestion, and the contents carefully examined. Alcohol disappears with great rapidity from the stomach, and in all probability passes into the circulation as such, since no aldehyde is ever to be found present within the stomach. The effect on digestion varies at different times, according as the alcohol still remains within the stomach, or has become absorbed into the circulation. During the former stage the digestion of albumens is retarded. On the other hand, after absorption it stimulates secretion, causing especially a marked increase in the acid constituents of the gastric juice, and thus considerably accelerating the processes of digestion. Nor does the effect terminate with digestion. Secretion still continues, and much longer than if no alcohol had been given. At the same time it causes a considerable increase in the quantity of liquids to be found in the stomach. The beneficial effect of small doses of alcohol are thus readily explained, as also the deleterious effects of larger ones. Small quantities are so quickly absorbed that any delay which occurs during the presence of the alcohol in the stomach is so slight as scarcely to be appreciable at the same time that they stimulate secretion immediately after absorption, and thus assist digestion. With large quantities, on the other hand, the effects are quite the reverse. Not only is digestion considerably retarded by the mere presence of the alcohol, and the food allowed to remain for a longer time within the stomach, but the increased quantity of secretion, as well as its increased acidity, which follows on absorption, may be extremely harmful in conditions of the stomach, in which, it may be, hyperacidity and catarrh already exist. It follows, therefore, that if alcohol is to be given at all to assist in digestion, it should be administered preferably in small quantities, and best of all a short time before meals; any momentary delay in digestion which occurs before its absorption being then of no account, while the increased secretion has already set in by the time the food enters the stomach.—*D. Archiv f. klin. Med.*

Speedy Cure for Gonorrhea.—In reply to your question column I will give my three-day cure for gonorrhea:

℞ Oil sandal wood................	āā ʒ iv;
Fl. ext. quillea sapo..........	

M. and shake. Add

Glycerine...........................	āā ʒ iij;
Aqua cinnamon.................	

M. Sig: Teaspoonful four times a day.

℞ Morph. sulph......................	gr. iij;
Muriate berberina	gr. x;
Zinci sulphas........................	gr. viij;
Bismuth. subnit..................	ʒ iv;
Aqua rosa............................	℥ iv.

M. Sig: Inject a small amount after each micturition.

Keep the glans penis well covered with cloth, so as to prevent the discharge from soiling the linen. This is a very necesssary precaution for a speedy cure, as matter on the clothing reinoculates and continues the disease indefinitely. *Dr. Chas. C. Edson, Chicago Medical Times.*

The Physiological Effects of Massage. Dr. Symons Eccles describes four distinct manipulations and their immediate effects on the human tissues and functions, as observed by the writer in a series of experiments on healthy persons. (1) *Effleurage* stimulated the skin muscles, produced dilatation of the superficial vessels and insensible perspiration, excited the skin reflexes, and, acting through the cutaneous nerves, increased the rapidity of the circulation and heart's beat. (2) *Pétrissage* forced the lymph out of the muscles, increased the velocity of the blood-current through the part, temporarily decreased the size of a limb, and increased its muscular power. The pulse-rate was reduced, especially in abdominal kneading. (3) *Massage à friction* produced the same local effects as *pétrissage*, and was peculiarly applicable to joints. (4) *Tapotement* excited muscular contractions. The immediate and remote effects of massage as a combination of the above-named manipulations were: That the texture of the skin was improved, the sense of locality was increased, the general body temperature was raised, and the free surface temperature of a part under massage became higher than that of the rest of the body, while abdominal massage decreased the surface temperature of the extremities. A course of massage of one month's duration increased the body weight, the appetite, muscular strength, and ability to sleep and work well. In the subsequent discussion Dr. Playfair admitted that he looked upon massage as only one agent, along with overfeeding and freedom from previous surroundings, in the treatment of profound cases of neurasthenia or malnutrition, the exact character of which we did not as yet thoroughly understand. Some of the cases which were commonly counted as incurable and were a curse to their families, could, he thought, really be cured by these means. He was indifferent what terms were used, but underlying mere criticism of the language there was apt to be a sneer at the treatment. In severe cases of illness under his treatment he was accustomed to see an increase of ten pounds or twelve pounds a week, and many patients ultimately doubled their weight. He had seen this treatment wrongly used in cases of locomotor ataxy and disseminated sclerosis, owing to mistaken diagnosis. He had lately treated a lady whom he had found, as he thought, moribund, with the right lung riddled with cavities, a hectic temperature, and profuse night-sweats. There was very abundant expectoration without discoverable bacteria. He declined to attempt any treatment; and it was only after urgent pressure, and against his own wish, that he did so. The results turned out to be the most remarkable he had seen: The cough stopped, the patient rapidly improved and in two months and a half gained six stone, and her lungs were practically recovered. Overfeeding he considered only possible when there was massage to take away the waste. He was not speaking hyperbolically, but seriously, when he said that, given a girl who had wasted to a mere shadow, he would in a fortnight put her into a condition to eat with pleasure more than a lifeguardsman could manage. He wished to protest strongly against the doctrine that the art of massage was a difficult one, and took two years to learn; in his opinion, half a dozen lessons were quite enough, and any nurse who could not learn all that was wanted in that time was never likely to make herself useful at it.—*British Medical Journal.*

CONSCIOUSNESS IN EPILEPSY.—Bannister, in a recent article on this subject, comes to the following conclusions:

1. That the epileptic discharge may, in rare instances, take place in motor regions of the cerebrum, and not involve at all, or to any extent, those parts concerned in psychic functions so far as to seriously affect or abolish consciousness, meaning by that term a vivid sense of being and knowledge of one's thoughts and actions, continuous with that in the normal condition.

2. That in the so-called automatic epileptic conditions there may be a state of double consciousness, as it may be termed, in which it can not always be said that the mental functions in the abnormal condition is less perfect and complete than in the normal state.

3. The post- or pre-epileptic outbreaks of violence, the so-called epileptic mania, are not necessarily attended with loss of consciousness, but may be, in some cases, simply manifestations of extreme morbid bodily and mental irritability, with loss of self-control, but with no more impairment of consciousness than might be caused by similar emotional disturbance under other conditions.

4. That there may be a true automatism in epilepties, not attended with any apparent loss of consciousness, and due, possibly, to the rapidity of some psychic reflexes exceeding the limits of the reaction time necessary for their conscious recognition.

5. That the definition of epilepsy which makes loss of consciousness an essential character, is an arbitrary one, not supported on pathological or clinical grounds, either in the ordinary convulsive phase of the disease, or in its psychic manifestations.

A REMEDY AGAINST EPILEPSY.—

Extr. fab. Calabar.............. gr vijss;
Spir. æth.......................... f ʒ jss;
Aq. amygd. amar. (sive aq.
menthæ pip.)..................... f ʒ vss. M.

Sig: Five to eight drops *t. d.* for children; eight to fifteen drops *t. d.* for adults.—*Pharm. Zeitschr. f. Russland.*

Ice and Carbolic Acid in Inflammation of the Eyes and Eyelids.—Dr. Greenway says, in British Medical Journal, that among other diseases of the eye and eyelids in which he has successfully used applications of ice and carbolic acid are:

Phlyctenular ophthalmia, keratitis, sclerotitis, and non-specific iritis. He attended a young child for an acutely inflamed cornea, with an elongated ulcer in the center, the result of measles. The ice and carbolic application and five-minim doses of tincture of iron every four hours proved a cure in a comparatively short period.

The mode of applying the ice and acid solution is to place those ingredients in a small pig's or sheep's bladder, suspended from a band passing across the patient's forehead, and encircling the head, the bladder lying in front of the affected eye, fresh supplies of ice and acid to be added as often as required. In order to prevent injurious effects by a too prolonged application of extreme cold, the bladder should be removed occasionally, and reapplied when returning warmth is perceptible. The acid solution is made by adding half a fluid ounce of the glycerine of carbolic acid (B. P) to a pint of water. A tablespoonful of this solution will be sufficient to place in the bladder at a time.

A new Method of Testing the "Knee-Kick"—It is the desire of the writer to call the attention of physicians, and more especially of those interested in nervous diseases, to a very simple and delicate method of testing the so-called tendon reflex of the knee, or "knee kick." Aside from its precision, this method will recommend itself to the practitioner, because it can easily be employed on patients who are confined to the bed. As soon as a convenient method of striking the ligamentum patellæ a blow of known force has been devised, the method will gain a new importance, because it lends itself readily to simple means of recording the extent of the movement, and will thus enable the physician to keep an accurate record of the condition of his patient, and of the changes which the "knee-kick" may undergo in the course of disease.

Last winter the writer made a series of experiments, in the physiological laboratory of the College of Physicians and Surgeons, upon the time required for the development of a contraction of the quadriceps muscle in response to a blow on the ligamentum patellæ, as compared with the intervals elapsing when the muscle was stimulated directly by a faradic current, and reflexly by an irritant applied to the skin near the knee. (American Journal of the Medical Sciences, January, 1887, p. 88.) These experiments demanded a more delicate means of testing the "knee-kick" than any in general use. After a time an appliance was found which satisfied all the requirements. It is unnecessary to describe the method followed in this laboratory research, for it is not feasible for the general practitioner; the following imitation of this method, however, can be employed in all places and at all times:

Let the patient lie on his side, the leg to be examined being uppermost. Place a cushion or roll of cloth between the thighs, so as to separate the knees, and as far as possible to fix the thigh of the limb to be studied. Support the foot of the leg to be examined by a sling formed of a loop of bandage, or of a towel, suspended from a cord. Grasp the cord as far from the foot as may be, letting the hand be directly over the ankle, that the leg may swing freely and the degree of flexion of the knee be determined entirely by the tension of the muscles. Strike the ligamentum patellæ with an instrument which has a rounded edge and that is considerably heavier than the ordinary percussion hammer.

Improvements upon this method will readily suggest themselves; such as to make the thigh immovable by letting it rest in a splint which is molded to its inner and posterior surface, and which is fastened to a firm support; to fix the foot in a suitable swing; and to let the cord from which it is suspended come from a pulley at the ceiling.

By means similar to those described, a marked "knee-kick" may often be got from a patient who by the ordinary methods of examination would exhibit little or none. The delicacy of the method depends on the fact that the muscle is relieved of the weight of the leg, and its slightest contraction can therefore cause a visible movement. By this means some rather curious results have been obtained. A marked "knee-kick" was observed in the case of one subject during sound sleep. The reinforcements described by Dr Weir Mitchell (Medical News, February 13 and 20, 1886) were admirably illustrated. In short, the method seems to meet all the requirements of the investigator.

The extent of the motion of the foot, and consequently of the contraction of the quadriceps muscle, may be recorded by the following simple arrangement: A string may be fastened by one end to the heel, and by the other to a strip of elastic, which in turn is attached to a firm upright support. The support can then be placed in such a position that the string shall be tense, shall be horizontal, and shall form a right-angle with the long axis of the leg. The writing mechanism may consist of a piece of wire bent to form a T, the horizontal arms of which can be fastened to the string, while the free end of the stem can rest on a paper, coated with lampblack and secured to a board, which is placed directly beneath.

A contraction of the quadriceps muscle will extend the leg, stretch the elastic, and, by drawing the wire across the blackened surface, leave a record of the extent of the movement. Such a tracing can readily be fixed by passing the paper through the ordinary brown shellac varnish. Crude as such a method is, it would enable valuable records to be obtained with but little trouble.—*New York Medical Journal.*

INFLUENCE OF MENSTRUATION ON THE PULSE.—According as the *vis a tergo* changes in unison with our position, the pulse-rate varies, whether we sit, stand, or lie down. Such at least is the case in health. The knowledge of this fact is of practical value in the examination for life insurance. Any emotion, especially in nervous persons, will at once increase the pulse, and to determine whether in a candidate for life-insurance the frequency of the pulse is due to a transient cause or to disease, all that the physician has to do is to let the applicant lie down for a few minutes, when the pulse will at once become slower and assume its normal rate, provided there is no lesion of any kind producing the increased frequency, for then the pulse will remain the same as when standing. Hypertrophy of the heart induces greater rapidity, *not* influenced by position.

An interesting observation referring to this point has recently been made by Dr. F. Louge. (*Gaz. des Hop.*, 1886, No. 147.) He found that women, while menstruating, all have a pulse more frequent than usual, and no position, whether they lie, sit upright, stand, or walk, seems to exert the least influence on the pulse-rate. According to L. this is due to the altered blood-pressure always present during the menses.—*Med. and Surg. Reporter.*

TREATMENT OF DIABETES.—Dr. Mitchell Bruce, in Practitioner, January, 1887, draws attention to the value of the acetate of morphine in combination with strict diet in this affection, the drug being rapidly increased in dose to as much as seven grains *per diem* He found it ineffective when given hypodermically, and infers that in his patient the glycogenesis was hepatic, the morphia acting fully only when taken up by the portal vein. He thinks that by this means we can determine whether the excretion of sugar is due to hepatic or general (muscular) production, or to non-destruction, as in the last two instances hypodermic medication should be as efficient as that by the mouth. He has found little utility in the various supposed remedies which have been introduced of late, including arsenite of bromine and salicylate of soda, but he has pointed out that diabetes in elderly persons is often a very tractable disease, easily controlled by dietetic regulations, and in such cases any drug may appear to succeed. Surgeon-Major Gardner (Ind. Med. Gazette, August, 1886,) has recorded a case of diabetes benefited by pepsine in five grain doses, given twice daily in conjunction with diabetic diet.

Jambal or jequirity seeds in powder have been used as a remedy for diabetes. Mr. W. L. Scott, in the British and Colonial Druggist, finds that this powder hinders the diastatic action of the malt ferment. The present writer could observe no result from this drug.

PEPSIN IN THE TREATMENT OF DIABETES.—The late Surgeon-Major E. B. Gardner has recorded a case illustrating the benefit of pepsin in diabetes mellitus. It may be given with other drugs, and it has the advantage of enabling the medical man to dispense with some of the more irksome of the diet restrictions. His patient was a native of India, aged thirty, who had suffered from diabetes for about two years, and was blind from cataract. He was restricted to milk or buttermilk, bran bread, and meat two or three times a week; and five grains of pepsin were given twice a day. The urine immediately diminished in quantity, and became of lower specific gravity; and at the end of six weeks the man was so far improved that, though not well, he was able to take starchy and saccharine substances with impunity. The only other treatment adopted was an occasional small dose of castor oil, and pure distilled water *ad libitum* colored with permanganate of potassium to satisfy the patient that he was having enough medicine. The advantages claimed for this addition to treatment are: (1) That it can be given in addition to other remedies, and during observance of dietitic rules; (2) that it permits a relaxation of strict rules of diet before they become injurious; and (3) that it never causes, but frequently relieves, any troublesome concomitant affections of the skin.—*London Practitioner.*

TREATMENT OF DIABETES MELLITUS.—Dr. Robert Saundby concludes an elaborate paper, in the London Practitioner for December, on this subject, with the following comments:

I have treated many cases with and without opium, and the strong impression left on my mind is confirmed by these cases, that in opium we possess the most valuable, and I may add the only trustworthy drug for the treatment of this disease.

Codeine, when given even in much larger doses than are suggested by its principal advocates, is comparatively inert. Opium is especially valuable for the influence it appears to exert in diminishing the amount of urine. An opium pill often gives an undisturbed night to patients who, without it, have to rise frequently to pass water.

Salicylate of sodium as an alkali may be of some service, for I am strongly in favor of the alkaline treatment of diabetes, but I have never observed it to produce any specific effect on the quantity of water or the amount of sugar.

Arsenite of bromine, whether used pure or in the form of Clemens' solution, has never in my hands justified the praises it has received in some quarters. I have already given you a case in which it was quite ineffective, if not actually prejudicial, but I have used it in six other cases without being able to observe any specific effect. I have given it in doses of one sixth grain of the pure drug, and up to ten minims of the solution. Dr. N. S. Davis obtained his results with five-minim doses, so that I have gone further than he has. I have also used jambal or jequirity seeds in powder, and boracic acid, without any perceptible result.

Bromide of potassium does not deserve the name of a specific, but is, in my opinion, the best routine remedy to employ in conjunction with the use of opium. It is suitably given in a mixture combined with a little bicarbonate of potassium and some bitter infusion, and very satisfactorily allays the nervous irritability so often present.

The time and space at my disposal do not enable me to enter into the treatment of symptoms, nor do I know that I could do so with any useful results. I would commend to your attention Mr. Lawson Tait's success with the sulphuret of potassium ointment in the treatment of vulvar pruritus, and to the value of vapor (steam) baths in alleviating the dryness of the skin. In my own practice I have found borax lotion very efficient for the relief of the former complaint.

In the treatment of coma, that terribly fatal complication, I am still unable to suggest a remedy. In my last case, after clearing out the rectum I used copious alkaline enemata, and gave five-minim doses of liquor strychninæ subcutaneously every quarter of an hour for five doses, and afterward every hour through the night. The patient rallied and regained consciousness, but next day his temperature went up to 106°, and he died. As he had extensive chronic caseous pneumonia it could not be said to be a favorable case, but in spite of this the results were just sufficiently encouraging to induce me to try the same means again should an opportunity present itself. As no physiological symptoms were produced, I should feel disposed to be even bolder in the use of the strychnine another time.

CHLORAL HYDRATE AS A VESICANT.—Chloral hydrate in fine powder is distributed uniformly on a piece of adhesive plaster, warmed until the chloral hydrate commences to melt, and applied. It is advisable to use a little oil or lard on the parts previous to applying the plaster. The action is very prompt. After ten to fifteen minutes the plaster may be removed. If application of oil is not omitted, and plaster not allowed to remain on too long, no disagreeable symptoms occur. If chloral hydrate is applied for one hour, the skin is destroyed, and ulcers difficult to heal result.—*Nat. Druggist.*

TO BREAK UP A HYSTERICAL PAROXYSM.—Ruault, of Paris (*L'Abeille Méd.*), has often employed firm and continuous compression of some superficial nerve. The supra-orbital nerve is especially adapted for this purpose. The patient's head being firmly held between the hands of the physician, he places his thumbs on the incisura supra-orbitalis and makes gradually increasing pressure. The effect is said to be as follows: The patient begins to contract her facial muscles as if in pain, gives vent to short screams, makes four or five short inspirations, the thorax remains fixed in inspiration, the dorsal and nuchal muscles contract to hyperextension of the spine. Now a deep expiration takes place, the muscles relax, the paroxysm is over. The pressure may have to be repeated, as a new paroxysm may come on after a short time, and resorting to it early may intercept the attack. The sooner the paroxysm comes under the treatment the more rapidly will it be broken up by the maneuver.—*Memorabilien.*

TREATMENT OF MALARIAL DISEASES BY PICRATE OF AMMONIA.—Dr. H. Martyn Clark, writing from India to the London Lancet, says of this preparation of ammonia:

During a period of four years and a half I have treated over ten thousand cases of these diseases, with the picrate of ammonia, with the happiest results. So uniformly successful has it been that I have given up the use of quinine and the cinchona alkaloids for the treatment of intermittent fever, and have substituted picrate of ammonia for them. A record was kept of five thousand cases of intermittent fever treated with this agent. Of this number, in nine cases only did it fail to cure, and in these quinine succeeded at once. I usually give it in doses of from one eighth of a grain to a grain and a half four or five times a day in pill. Half a grain is a fair average dose. Thus given, the result is soon visible. In the great majority of the cases treated, half-grain doses in the interval prevented the recurrence of the next attack of the fever, while in about twenty per cent of the patients two or three attacks followed before the fever ceased. In one case of quartan ague, despite large doses of the salt, the fever recurred for six periods, gradually diminishing in intensity, and then yielded to it. It is equally successful in all the forms of ague, but it is a curious fact that the cases in which it failed to cure were all of the tertian variety.

I have also employed this agent in the treatment of twenty-five cases of malarial neuralgia of various nerves, six cases of malarial headache, and one of malarial colic. In all these instances it cured completely and speedily. In remittent fever it does not appear to be of use. Six cases of a severe type were treated with it without any effect. Neither is the enlarged spleen of ague benefited by it. I have given it in numbers of such cases in conjunction with ergotine, with good results, but such results are secured equally by the use of the ergotine alone.

My experience leads me to the conclusion that in all varieties of intermittent fever, and in malarial neuralgias, picrate of ammonia is a valuable antiperiodic, and it is an efficient and perfect substitute for quinia. It has the following advantages over quinine:

1. It is much less expensive. This is an important consideration where, as in Indian practice, hundreds of cases of malarial diseases have to be treated annually.
2. The dose given is very much smaller.
3. It does not produce the unpleasant effects that quinine does — headache, deafness, tinnitus, etc.; nor does it disorder the digestion or cause nausea, as quinine is apt to do in the doses in which it has to be given in India.

Sulphate of Sparteine. — Hans Voigt writes that the therapeutic action of sulphate of sparteine is as follows: In small doses the salt increases the efficiency of the cardiac contractions and raises the arterial pressure. The number of heart-beats is always increased. These effects are observed within an hour of the administration of the drug, and continue for twenty-four hours. The author recommends the suspension of the administration of the drug for some days, but it may be given for a week without risk. The remedy does not always remedy the rhythm of the heart-beats. Its action on the respiration is variable. Diuresis appears to take place in proportion to the improvement of the cardiac action. A beneficial sedative action is often observed. Headache, vertigo, *malaise*, and other objectionable symptoms were but rarely met with as the result of the administration of small doses. The dose employed has been from $\frac{1.5}{100}$ to $\frac{6}{100}$ grain. It will be remembered that in See's hands much larger doses ($\frac{3}{10}$ to 3 grains) were tolerated without cumulative or other objectionable effects.—*London Lancet.*

The Galvano-cautery in the Treatment of Diphtheria.—Dr. Bloebaum, of Coblenz, advocates the use of this agent in the treatment of diphtheria. He found in the cases he treated (among them his sixteen-year-old daughter) that the application of the red-hot platinum wire, even without the use of cocaine, caused very little pain, that the cauterized sores were totally sterilized, the fever disappeared, the membranes did not reform, and no local inflammation followed the burning. These results he obtained without the aid of antiseptic or antithermic medicines, and so confident is he of the efficacy of this new mode of treating diphtheria (of which it is said V. Nussbaum and other continental authorities have expressed a favorable opinion), that he considers that "the number of cases of deaths must be reduced to a minimum if the patients are treated in the proper manner without loss of time by the platinum loop."

Excision of Chancres. — Dr. Andronico claims to have entirely eradicated the syphilitic virus in four cases by excising the primary chancre. He believes that if the sore is situated in a locality, such as the nymphæ or the prepuce, where excision is possible, and if the operation is performed within forty-eight hours, or at the very latest three days, from the first appearance of the chancre, success may be hoped for. The operation is, he says, contraindicated if a longer time than this has elapsed, or if the glands are enlarged.—*British Medical Journal.*

Pulsatilla.—In the British Medical Journal Mr. Gerard Smith strongly recommends pulsatilla in "inflammatory states of the testicle, epididymis, and spermatic cord." He says it "subdues promptly the intense suffering of such cases; and the relief is so rapid that it is even unnecessary to employ morphine to subdue the pain, while the swelling and heat subside more rapidly than under any other drug."

CONTAGION OF TETANUS (?).—At the Société de Chirurgie an interesting paper, followed by discussion, was read by M. Larger, which seemed to show clearly that there were good grounds for believing in the contagiousness of tetanus. Four patients, who had been treated in the Colmar Hospital, were seized with tetanus at different intervals, and all died. The nature and severity of the wounds varied in each case from an amputation to a simple incised wound. The only thing common to them all was that the cases had all occupied contiguous beds. Tetanus is rare at Colmar. None of the patients had had any thing to do with horses. A veterinary surgeon, M. Cagnat, had practiced castration on horses for twenty-five years without a single case of tetanus. At the end of 1884 he removed with an écraseur a tumor of the testicle in a horse; the animal died of tetanus. Operations for castration practiced with the same écraseur upon five horses afterward were followed by tetanus and death in all the animals. The écraseur was then submitted to disinfection by being heated to a high temperature. The instrument was afterward used for fresh castrations, and without tetanus resulting in any of the animals operated on.—*London Lancet.*

TREATMENT OF NOCTURNAL ENURESIS.—Dr. Alexander Harkin in a paper on this subject says:

I have long since discarded belladonna and bromide potash as insufficient remedies, and have adopted the use of derivatives and revulsives, such as dry and wet cupping, or blisters to the nape of the neck, applied as high as possible, and as close as circumstances will permit to the neighborhood of the foramen magnum occipitale and the region of the medulla oblongata.

I have had but seldom to apply to the cupping; one full vesication being generally sufficient; a blister three inches in length by two in breadth, either by emplastrum lyttæ, or the linimentum cantharidis of the Pharmacopeia, applied vertically, suffices. It is very seldom that a second application is required; occasionally, especially in females, after some months of respite, there may be a call for the renewal of the remedy; in obstinate cases and in grown up patients, dry or wet cupping may be requisite to complete the cure.—*Provincial Medical Journal.*

DURATION OF THE INFECTIOUS PERIOD OF SCARLATINA.—Dr. Ashby (British Medical Journal) at the Manchester Fever Hospital, summarized his experience as follows: (1) If desquamation is complete, patients may be discharged at the end of the sixth week, though, to secure absolute immunity, it is wiser to delay this until the eighth week. (2) In complicated cases, such as those with otitis, empyema, nephritis, and glandular abscesses, the patients should be considered as likely to convey the disease until these are cured. (3) While it is important that desquamation should be as complete as possible, should this continue beyond the eighth week upon the palms and soles, further detention in the hospital is unnecessary.

CANNABIS INDICA IN THE TREATMENT OF DYSENTERY.—Staff Surgeon S. J. Rennie, of Cawnpore (Indian Medical Gazette, December, 1886), publishes brief histories of four cases of dysentery, acute, subacute, and chronic, treated successfully with tincture of cannabis. He prescribes it according to the following formula:

Tincture of cannabis......	...15 min.;
Bismuth subcarbonate........	5 grains;
Mucilage of gum arabic.......	30 min.

Mix, and add:

Tincture of ginger.................	āā 20 mins.;
Comp. tinc. cardamom..........	
Spirits of chloroform............	
Cinnamon water......................	..to 1 oz.

This quantity to be taken after each meal. The administration requires to be kept up for several days after all symptoms have ceased.

POTASSIUM PERMANGANATE IN AMENORRHEA.—Dr. Marshall, of San Francisco, after employing this drug in fifty cases of amenorrhea, has arrived at the following conclusions:

1. The permanganate acts satisfactorily in about seventy per cent of "selected cases."

2. It should be administered one or two hours *after* eating.

The disagreeable action on the stomach may be relieved by combining it with the following:

Oxalate of cerium..............	1 grain;
Hydrochlorate of cocaine.....	$\frac{1}{6}$ "
Subnitrate of bismuth.........	5 grains;
Powdered ipecac..............	..$\frac{1}{60}$ grain.

The writer also states that this drug has a marked tonic effect, and generally causes mental exhilaration.—*Canadian Practitioner.*

AMENORRHEA.—Professor Parvin recently gave the following formula for amenorrhea with anemia, which he has used for many years, and in certain cases derived very satisfactory results (Col. and Clin. Record):

Terebinthinæ albæ.........	āā gr. j.
Ferri sulph. exsic...........	
Pulv. aloes......................	

Ft. pil. Sig: *Ter die.*

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. III. SATURDAY, MARCH 19, 1887. No. 6.

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H. A. COTTELL, M. D., - - - Editors.
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A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

Books for review, and all communications relating to the columns of the journal, should be addressed to the EDITORS OF THE AMERICAN PRACTITIONER AND NEWS, Louisville, Ky.

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PLACENTA PREVIA.

The severest test of nerve the physician is likely to meet in the pursuit of his professional work will probably be applied when he encounters a case of placenta previa. It is well then to have definite notions as to what should be done in such cases, even if that be not exactly the best that can be done. This will at least guard him against confusion and panic.

It is now generally agreed, that when the pains are on, the placenta partly detached, and the patient is losing blood in unusual quantity, the hand should be introduced into the vagina and the placenta penetrated at its center. Through this rent the hand is to be passed, the child seized, turned, and brought down by the feet. If the hemorrhage then ceases the labor may be left to nature. Now and then it will happen that at the time of the doctor's visit, the placenta has been so far detached as to allow of the breaking of the amniotic sac and the escape of the waters, when it will be found impossible to turn. In this case it may be necessary to apply the forceps. Here arises the question of detaching the rest of the placenta. This, as a rule, is held to be bad practice, as it will only enlarge the bleeding surface. If possible, the forceps should be applied through the torn placenta without further detachment.

In some cases, indeed, the placenta has been known to move before the child, and to be placed like a caul over its head when born; in others it might be difficult to extract the child thus entangled, when it would be proper to remove a portion of the now flaccid placenta before making traction.

Such physicians as have not a large obstetric practice, will find it expedient to go through an imaginary rehearsal now and then so as to be mentally prepared when a case comes up. Or perhaps, what is better, to write out a full course of the procedures necessary to its rational management. Ergot, hot water, chloroform, antiseptic solutions, etc., should be so familiar in thought as in no case to be overlooked.

TREATMENT OF PUERPERAL CONVULSIONS.

In the numerous references appearing of late in the various medical journals, it seems taken for granted that all cases of convulsions at the time of childbirth are due to uremic poisoning, the cases that are purely nervous being so few as hardly to be thought worthy of mention. This is to be regretted, rather because it vitiates statistics of treatment than because such cases will suffer from the treatment appropriate to purely uremic convulsions, for the converse is probably true. The profession, though not radically antagonistic in their views of treatment, are far from being entirely agreed.

The hypodermic injection of morphine, credited to Loomis, inhalations of chloroform, injections of chloral hydrate, rapid cathartic purging and bleeding, are the leading measures advocated, and among these we believe the most efficient means are to be found, two only being of doubtful utility if not contra-indicated, namely, bleeding and chloroform.

The immediate cause of death in a large majority of cases of this disease would seem to be carbonic-acid poisoning. The urine may be charged heavily with albumen, and large quantities of products that should be excreted by the kidneys may be retained in the blood, yet, but for some accident precipitating convulsions, the patient might have lived for several days or even recovered without serious inconvenience. But labor or some accident brings on an attack of convulsions, or it may be that the case has become ripe for it, being only a little worse than for several days past, when all at once the spasm arrests circulation and oxidation; the blood becomes charged with carbonic acid, and thereby thickened. Circulation is in consequence retarded until another attack, when this condition is intensified, and so on until the dark blood gets entirely too thick to circulate, and the poisoned and exhausted heart refuses longer to beat.

If the foregoing statements be true, it may be pertinently asked, why should we use chloroform during the periods of spasm, and with its vapor prevent the oxidation of the blood? Chloroform may seem to do good for a while, but in the long run is it not likely to do more harm than good? There are many cases that withstand its effects and get well, but many succumb under its use. If any antispasmodic is to be used, chloral by enema will answer better, since it is equally though less speedily relaxing, and does not interfere with respiration.

Bleeding we take to be for the most part unnecessary, since cases are cured wherein the blood is already too thick to be emptied from the veins. But this measure should not be condemned except as to its excessive use.

The infusion of salt water into the veins and washing out the poison from the blood, as lately suggested by a continental physician in other cases of poisoning, may be fruitful of good when applied to these cases; and if so, a moderate withdrawal of blood would facilitate the action of the remedy. Experiments of this kind will, no doubt, speedily be made and the value of the plan tested.

Hypodermic injections of morphine, which are otherwise to be commended as lessening the excitability of the patient and decreasing the number of attacks, might under the treatment above named do harm, since it has been found that the infusion of salt water into the veins fails to increase the amount of urine when morphine had been taken in poisonous quantities.

Another method of treatment but recently advocated, and apparently full of promise, is bold, prompt hydragogue catharsis. Instead of one drop of croton oil, as recommended by Lusk, it is advised that from three to five drops be given at once, and that this be followed by dram doses of compound jalap powder every half hour, or, what is perhaps better, twenty grains of jalap to two drams each of bitartrate of potash and Rochelle salts. In the meantime large enemas of salt in warm soapsuds are administered until the freest catharsis is accomplished. The jalap is then discontinued, and the potash salts continued as long as may be necessary to keep up the catharsis. Chloral, after the bowels have been freely evacuated, may be injected with good effect.

These measures in milder form may be prophylactic in threatened attacks. Here the croton oil, the bleeding, and the enema may be dispensed with, unless the case seems urgent.

This treatment, except in a few cases where the spasms are tonic and nothing can be swallowed, is easily applied. When deglutition is impossible, the stomach-tube may be used for the introduction of the medicines.

It is claimed by the author of this method of treatment that its timely use in cases uncomplicated with organic kidney disease will in the majority of instances result in a cure, whereas under the means more commonly in vogue death is the rule.

TREATMENT OF ACNE.—Dr. J. T. Metcalf says, in the Boston Medical and Surgical Journal, that he directs an ointment of 3 grains chrysophanic acid to vaseline ℥j. The face is well washed with soap and dried, at night. Before going to bed the parts in which acne exists are well rubbed with the ointment, and this is repeated every night, until a sharp dermatitis with scarlet skin is produced. Inunction then ceases until disappearance of the artificial inflammation of the skin, when a repetition of the ointment is made under conditions above stated.

Notes and Queries.

JOHN HUNTER.—The Hunterian oration for 1887 was delivered by Mr. Savory, President of the Royal College of Surgeons. Mr. Savory is one of the very best speakers in England, and his address on Hunter is worthy of the great theme and of Mr. Savory's own fame. We have space for a few extracts only. The address appears in full in the British Medical Journal:

A noteworthy point in the character of Hunter appears to me to be found in the relation which in him thought bore to action. He combined in himself in a very eminent, I had almost said in a singular degree, the power of conception and of execution. He not only saw much farther, but he was able to do much more than most others. He saw, as Bacon saw, and the idea was probably as original with him as with Bacon, that the systematic and thorough examination of facts was the first thing to be done in science, "and till this had been done faithfully and impartially, with all the appliances and all the safeguards that experience and forethought could suggest, all generalizations, all anticipations from mere reasoning must be adjourned and postponed; and further, that, sought on these conditions, knowledge certain and fruitful, beyond all that men then imagined, could be obtained." But he went immeasurably farther than the great prophet of science in putting his conceptions to the proof in imperishable work on the lines he had laid down. "I only sound the clarion," said Bacon, proudly, "but I enter not into the battle." Hunter sounded a clarion the echoes of which are reverberating still, but he entered into the battle also, was always found where the blows fell thickest, and we are in possession of the spoils. In his Museum there is at once the clearest evidence of the idea and the richest fruits of execution. Bacon, we know, has been compared to Moses on Pisgah surveying the promised land, and Newton to Joshua, who began to take possession of it. But Hunter saw the Canaan of surgery, and took possession of it too.

The study of Hunter in his work is instructive, in view not only of what he was, but also of what he was not. What Hunter's acquirements were when he commenced the study of anatomy is not quite clear, and can not be determined with precision now; but this at least may be considered certain—that he could not at that time have been called a man of good general education.

But all this is very far from saying that Hunter was not, in the strictest sense, an educated man. He was not indeed a scholar. If the subtle rendering of a Greek poet or the skillful turning of Latin verse be the sole test of culture, he gave no sign of it. Of ancient lore he was sadly destitute. In the *literæ humaniores* he could have had no place. But if a transcendent knowledge of Nature and her ways, if a firm and ample grasp of her noblest truths be accounted education; if the devotion through a life-time of gigantic intellectual powers and of a truly loving heart to the reverent study of God's works be culture, then Hunter, although not a man of letters, was surely a highly educated man.

The fame of Hunter, after all, falls far short of him. It may without exaggeration be said that he is really greater than to most men, even to most surgeons, he appears to be. And the reason of this is not far to seek. Neither the genius nor the labor of Hunter is of a kind that at once strikes the inquirer or can be readily understood by the student. He made no startling discovery, in the popular acceptation of the term, which can be discerned at a glance and appreciated by every one. As we follow, one after another, the successive, or oftentimes, as they really were, the simultaneous works of Hunter, we may remark the absence of any apparently great intellectual feats; we are never dazzled by the brilliancy of particular achievements. We may indeed say of very much of what he did that it might have been produced by any very intelligent, thoughtful, and industrious man devoted to his subject. With regard to separate portions of it, we can very rarely go beyond this, and exclaim, as a famous author tells us that he did, as he threw down his pen over one of his own passages, "By Jove, that is a stroke of real genius!" In this respect Hunter will not compare favorably with some far below him in scientific rank. His work, in order to be fully appreciated, must be studied throughout. It is not, of course, of uniform excellence; but Hunter's fame does not rest altogether on any particular part; indeed, it may be said that any particular part might be withdrawn without any material loss to our estimate of his power.

Beyond all cavil, if the word have any meaning for us, a man of genius, a man supremely endowed with powers and faculties for the discovery of truth, with little education at the outset of life, without the advantage of the schools, he found himself face to face with the deepest and most mysterious problems of Nature. And he was forthwith able to take full measure of the magnitude of the task. It seems never to have occurred to him that he could snatch an answer by surprise; that a solution could be reached by any short or sudden means. But his survey assured him that upon one plan only, but by that abundantly, could success be made certain. So with patience, which of itself has been called genius, he went back to the beginning. It was genius, too, and that of the highest order, to discern at so vast a distance where that beginning lay. But there he placed himself, and from that point went forward only when he had made each footstep sure. Who shall say that his imagination was not fertile, or that he faltered in the use of it? Yet no seductive theory tempted him into undue haste; and though sometimes drawn aside by specious speculation, he seems hardly ever to have lost in an unsound conclusion. And when he fell, the treasures he had won were found not only in the multitude of facts he had garnered, or even in the principles which by virtue of the facts he had discovered were made plain, but also in the very plan and purpose of his work. For from the height on which at length he stood, not only can the path which he trod be clearly traced, but the highway thenceforward is disclosed.

So is the greatness of John Hunter to be estimated not only by what he discovered, but rather by the lesson and example of his work. Truly it may be said of him that he did much. Truly it may be said of him that he showed how much more is to be done.

"He, being dead, yet speaketh"—still speaks to us as no other man before or since has spoken. But when and where can his voice be heard most plainly? Are the spirits of those who have shaken off "this muddy vesture of decay" permitted to revisit the scenes of their earthly labors? Can they still be with us on our way? If the soul of this mighty son of science is ever in our midst, surely his favorite haunt must be now within these walls—in the Museum which will soon almost surround us—at once his most graphic and glorious monument.

The memory of Hunter, like the memory of the greatest men of every age, is imperishably enshrined. Art, in her noblest efforts, has striven to make his form familiar to us. His name is stamped in indelible characters on the records of human progress; but, before all, he lives in and draws the breath of life from his own immortal works; and of these, none can be so truly a memorial of the very man as this; no other can so resemble him, can possess so much of him, can tell so fully of what he was, can so perpetuate him in the vast store of facts, in the purpose for which they are set forth in the illustration of principles, in the suggestion of truths beyond those it can show, above those it can reach; in all this, I say, no memorial, however majestic, can rival our Museum.

A Study in Helminthology.—The following case may prove interesting to your readers, especially to such as practice medicine in the South, in that it brings to light a natural phenomenon which may lead a credulous person to erroneously believe himself the subject of worms, and his physician possibly to submit him to unnecessary treatment:

Mr. S., a victim of malaria and nervous exhaustion, came to me late last summer with the statement that he had been for more than three years the subject of worms. In the unfolding of the history of his case, the patient informed me that his feces often showed on inspection hundreds of very small worms, which he doubted not were generated in his intestines. But in this connection he had noted the singular fact that the worms were never visible in the winter season.

This statement afforded me a clue to the mystery, and I was thereby able to prove to his satisfaction that the worms, full grown or in embryo, which had given him so much concern, had never been in his intestinal canal, and could have no connection with his present ill-health.

In this Southern land there is a small fly, closely resembling the common house-fly, which swarms upon the feces immediately upon defecation, where they deposit larvæ in the form of a minute worm. These larvæ begin to crawl almost as soon as they are laid, and in a few minutes after defecation the feces become literally alive with them.

Such a helminthological display might well excite the fears of an ailing man and readily lead to the opinion that his alimentary canal was swarming with vermin. If some vender of quack worm nostrums should take advantage of the habits of this fly he could easily pick up a fortune among the illiterate sufferers from chronic malaria in some of our Southern districts. W. C. SPEARMAN, M. D.

TEXARKANA, ARK., March 6, 1887.

ANNUAL MEETING OF THE ALUMNI SOCIETY OF THE UNIVERSITY OF LOUISVILLE.—The Society met in the lecture-hall of the University, February 28th, at 8 o'clock P. M., the President, Dr. P. G. Trunnell, in the chair.

On a call of committees, Dr. McIntyre, of New Albany, Ind., chairman of the Committee on Alumni Certificates, reported that he had made arrangements for lithographing them at a moderate cost.

On motion, it was agreed that the price fixed should be one dollar each to the alumnis, which should cover all dues and initiation fee.

The Society, after addresses by Drs. West, Godshaw, and Smith, went into an election of officers.

Dr. D. T. Smith, of Louisville, was elected President, and Drs. Emory Petigo, of Edmonton, Ky., A. K. Cox, of Bardstown, Ky., Chas. C. McIntyre, of New Albany, Ind., D. C. Peyton, of Jeffersonville, Ind., George Simpson, of Louisville, Ky., Frank C. Hoyt, of St. Joseph, Mo., and F. C. Leber, of Louisville, Ky., were elected Vice-Presidents.

Dr. D. L. Washburne, of Louisville, Ky., was re-elected Secretary and Treasurer.

The President was authorized by resolution to appoint the necessary committees for carrying out the work of the organization.

The Association then adjourned, to meet in the same place on the evening preceding the day of the college commencement exercises for 1888. D. L. WASHBURNE,
Secretary.

GENESIS OF ALCOHOL.—According to the Talmud, one theory concerning the origin of alcohol is as follows, viz: Noah planted the first vineyard, Satan being present and assisting in the work. After the vineyard was planted, Satan slew a lamb, a lion, an ape, and a hog, and with their mingled blood watered the roots of the vines. This he did, he said, because he who shall taste for the first time of the juice of the grape will be a lamb; he who shall use it in moderation will become, for the time being, a lion; he who shall use it to excess will become an ape; and he whom it shall master will become a hog.—*W. B. Davis, in the Epitome.*

THE DANGER OF BEING A PIONEER IN OÖPHORECTOMY.—Dr. Robert Battey, now the pride of Southern medicine, says, in describing the history of his first case: "While engaged in nursing assiduously, as I did, my first patient, spending ten days at her bedside without leaving the house for a moment, even for a change of linen—during this time of great suspense and anxiety, in the office of one of my brother practitioners were held nightly meetings of the profession of the town, receiving reports on the condition of my patient, awaiting her demise with anxious longings, in order to institute proceedings in our court, and put me before the bar as a criminal."—*New York Medical Record.*

THE EARTHQUAKE AS A CAUSE OF DISEASE. In the AMERICAN PRACTITIONER AND NEWS, of February 19th, is an article, by Dr. John Guitéras, on the "Influence of the Recent Earthquakes in Charleston upon Health," copied from the Medical News of January 8th, in which the author takes issue with Prof. F. Peyre Porchér, who in a paper in the News of December 11, 1886, attributed certain maladies which prevailed in Charleston during the period of the shocks and immediately after to electrical disturbances occasioned by the earthquakes.

Dr. Guitéras says: "Seismologists have shown that electricity has nothing to do with earthquakes, either as cause or effect. I have not found the slightest evidence of an electrical disturbance accompanying these earthquakes."

The following letter from Mr. M. A. Veeder, of Lyons, N. Y., in the News of February 26th, shows that the evidence which Dr. Guitéras failed to find is not wanting:

"The articles by Drs. Porcher and Guitéras, upon the influence of the recent earthquake shocks at Charleston upon health, raise the question as to the existence of peculiar electrical or magnetic phenomena at the time. The suspended bar-magnet in this locality was much disturbed at each period of earthquake activity at Charleston. A magnet which is very sensitive when placed near the ground may fail to show any appreciable variation when removed to a greater elevation, hence observations by means of ship's compasses and the like may be wholly inconclusive. Earth currents do not always affect telegraphic apparatus in the same way, hence it is only by means of observations that are sufficiently comprehensive and precise that the questions arising in connection with this subject can be settled."

Increase of Insane Paupers in New York.—The report of the New York State Board of Charities shows a marked increase of insane among the paupers of the State during the year past. In 1885 the various asylums reported 12,707 inmates of this class; for 1886 the figure is 13,533.

Lady Students in Paris.—*Lyon Médicale* states that there are 108 women studying medicine in Paris this winter, 83 of whom are Russians, 7 French, 3 American, 2 Austrian, 1 Roumanian, and 1 Turkish.

Dr. Stanhope P. Breckinridge, a gentleman of fine culture and superior talents, died in Chattanooga, Tenn., on the 14th inst. Dr. Breckinridge, a native of Kentucky, was born in 1840. He graduated from the Medical Department of the University of Louisville, and during ten years of his professional life was a resident of this city, where he made many friends and an enviable record as a scholar, writer, teacher, and practitioner in medicine.

Ergotine in Intermittent Fever.—Dr. S. L. Savitski, writing in the *Vrach* upon the value of ergotine in the treatment of intermittent fever, remarks that a combination of ergotine with quinine acts very satisfactorily, and that in this way considerable quantities of quinine can be saved, as half the dose of quinine which would be required if given alone will suffice if combined with ergotine. The preparation of ergotine used was Bonjean's, the dose in chronic cases being about a grain three times a day.

Vomiting of Infants.—The vomiting of young infants may often be cured by the exhibition of one third of a grain of hyd. c. cret. every three hours, though sometimes it proves intractable and even dangerous to life.

Antifebrine in Epilepsy—It is reported that Dujardin-Beaumetz is using antifebrine extensively in the treatment of epilepsy, and that he considers it one of the most powerful moderators of the spinal centers.

Dr. Williams (Bost. Med. and Surg. Jour.) says he has averted a great many felons by keeping a rag tied loosely around the finger, constantly wet with cold water. They must be taken in the earliest stage.

Dr. H. F. Campbell, of Augusta, Georgia, has engaged to contribute a paper in the Section of Obstetrics and Diseases of Women, at the next meeting of the American Medical Association.

It is said that some two hundred different cures for rheumatism were sent to President Cleveland during his late illness.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. III. [NEW SERIES.] LOUISVILLE, KY., APRIL 2, 1887. No. 7.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

CHRONIC SEROUS SYNOVITIS (HYDRARTHRUS[*]).

BY EDWARD VON DONHOFF, A. M., M. D.

A somewhat extended experience, and one differing in some important particulars in the matter of treatment from that voiced from time to time by other surgeons, leads me to the present a brief consideration of this subject, from a pathological and clinical stand-point, with a view to eliciting discussion.

In considering this, as also the remaining varieties of chronic serous joint affections, it may be borne in mind that as a whole they do not occur as frequently as fungous synovitis. As a group of kindred affections (all being essentially chronic in their nature) they are to be distinguished from fungous disease as in nowise tending to the spontaneous pyogenesis, this phenomenon attending only after repeated irritation or injury. Despite their persistence and troublesomeness to the sufferer, they have no connection with and no tendency to produce grave visceral diseases, such as tuberculosis or fatty degenerations; hence their rare termination in death and rare appearance in young subjects—children.

Chronic serous synovitis or hydrarthrus consists in a slow accumulation of thin synovial fluid associated with very slight structural changes in the synovial membrane, which becomes only a little thickened, and is marked by an increase of connective tissue without any increase of vascularity. The synovial tufts are elongated and in their apices the vessels become more tortuous; the granulation changes due to serous and plastic infiltration in fungous disease are entirely absent here. The custom of classifying chronic dropsies of joints among the non-inflammatory affections is borne out by accepted views concerning uninterrupted inflammatory phenomena.

The origin of chronic dropsies of joints is ordinarily attributed to "cold" or traumatism. The disease is often enough the remnant of former articular trouble, is chronic from its inception, and remains so.

Two conditions are most likely to be compounded with hydrarthrus proper, enlarged bursæ in the vicinity of joints and a form of synovial dropsy characterized by the protrusion of hernial sacs, like glove-fingers, between the interstices of the softened capsular ligaments. The first is best exemplified by the "housemaid's knee," and the second is most commonly associated with arthritis deformans, but occurs also in the absence of this variety of disease as a sequence of a softening process incident to intra articular pressure in very chronic and large simple dropsical effusions.

A further differential point is, that superficial bursæ are more or less *acutely* inflammatory in their inception, and sometimes suppurate spontaneously or as the result of rupture toward the surface. Diffuse suppurative cellulitis after subcutaneous laceration, an almost inconceivable accident to deeper accumulations, often follows similar occurrences in superficial bursæ.

Dropsical hernial protrusions can be more or less perfectly defined by the touch, and are not accompanied, as is simple intra-articular effusion, by symmetrical tumefaction at the site of the joint. The hernial protrusions are, at first, simply folds of the synovial sac which subsequently become filled with dropsical effusion, and are frequently, by the constricting fibers of the capsular ligament, cut off from communication with the joint cavity proper. (*Vide* successful (?) treatments of joint dropsies by iodine and other strong irritative injections.) Hydrarthrus must be further differentiated from hydrops tendinum diffusum and circumscriptum and fatty growths from the synovial membrane and sheaths of tendons.

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[*] Read before the Louisville Medical Society, March 3, 1887.

The gross clinical appearances unmistakably outline a correct differential diagnosis between simple dropsical (non-inflammatory) joint affections, except the acute neuroses and those of an opposite character. Markedly worthy of note is the classical symptom of involuntary flexion and muscular fixation, invariably an immediate attendant upon suppurative conditions and the great and exhausting pain incident to their inception; also the hot and exquisitely sensitive surface, the history of an abrupt accession and failure to ameliorate the pain by ordinary household remedies such as hot applications, etc. The absence of these symptoms from a supposedly inflamed joint is a positively contradictory circumstance. General systemic disturbances, high fever, etc., are also conspicuously absent in dropsical joint trouble, and but mildly present in the neuralgiæ. In a word, purulentiform joint disease is a serious and exhausting malady, while the dropsical form is, when unmodified by unavoidable circumstance or meddlesome surgery, a harmless (?) inconvenience readily overcome by judicious management, except in old subjects of lessened general vitality.

The treatment of simple dropsies of joints may be described briefly, thus: Rest, the promotion of absorption of effused fluid by pressure, local and general tonic and alterative treatment constitute the conservative remedies. Aspiration, followed by fixed dressing and ice-cold water irrigation, represents the intermediate operative course, while free incision and evacuation, followed by hermetic sealing, fixed dressing, and strict antiphlogistic regimen, make up the heroic procedure permissable in rare instances of failure of the less formidable plans, or in cases where accident or mischievous ignorance has invited purulentiform alteration of the milder condition.

The treatment indoctrinated by the French (Boinet and Ricord) is impracticable and dangerous to limb and life, especially when practiced by indifferently skilled hands.

The method is specifically objectionable because of its great liability to convert a simple catarrhal into a violent suppurating condition. The iodine, it is claimed, injected in the form of tincture, induces a change in the endothelium covering the synovial structure and promotes connective-tissue growth in its tufts and lessens its vascularity, thus diminishing the secretion. A part of the injected substance remains imbedded in the membrane. It is sometimes necessary, in the event of the first injection not proving curative or fatal, to repeat this dangerous experiment. Preferable to this mode, in the conductment of obstinate cases which have not yielded to systematic application of pressure, flying blisters, fixation of the joint, and constitutional medication, is free incision and subsequent hermetic sealing of the wound; and, the votary of antiseptics would add, irrigation of the wound and joint cavity with some antiseptic lotion. In one case, a woman aged forty-seven years, I opened the knee-joint after the manner described, and secured a perfect recovery. In several instances I have freely incised synovial hernial protrusion without untoward results. Of course strict antiphlogistic precautions must attend such procedure. In obstinate cases of bursæ tendinum circumscriptum, and they properly belong to the category of diseases under discussion—I have voluntarily induced suppuration by the seton, and cured the patient after he had refused to submit to the knife. In such cases dissections have not proven the origin of the tumor to be a circumscribed expansion of the sheaths of tendons. Two instances of diffuse dropsy of tendons have come to my notice, and both made prompt and permanent recovery after simple aspiration and pressure.

LOUISVILLE.

It is stated that an organization of one hundred physicians has been formed in Cincinnati to institute a war against the quacks.

NASAL REFLEXES AS A CAUSE OF DISEASES OF THE EYE.

BY W. CHEATHAM, M. D.

Lecturer on Diseases of Eye, Ear, Throat, and Nose, University of Louisville; Eye, Ear, Throat, and Nose Physician to Louisville City Hospital.

This subject has not received at the hands of medical writers the attention which its importance demands. As our knowledge of nasal reflexes extends, the influence of this organ upon the condition of organs near, or remote, excites our wonder. But the subject is in its infancy, and greater marvels are doubtless yet to be brought to light. In illustration of the subject I will report some cases that have been under my care during the last twelve months.

Mrs. N., from an interior town, has, for some years, complained of weak eyes. She is hypermetropic $\frac{1}{18}$, and presbyopic, being forty-five years of age. Glasses correcting these defects of refraction and accommodation give her but little comfort. She has been fitted with glasses by several oculists, and submitted to treatment at various times for her asthenopia or weak eyes, without obtaining relief. When she came to me I paralyzed her accommodation thoroughly, and after the usual test ordered spectacles, but without a satisfactory result. On further investigation of the case, I discovered that for some years she had suffered with nasal catarrh. I found a number of polypi in the right nasal cavity, and great engorgement of the mucous membrane in the left. Slight irritation with the probe immediately caused discomfort in the eyes. The polypi were removed by means of the cold snare, and the engorged mucous membrane reduced by the application of chromic acid, with relief to all symptoms referable to the eyes.

A striking case, illustrative of the effect of nasal reflex upon the eyes, I have quite recently discharged, entirely relieved. Mr. A., aged nineteen, had suffered from wry neck since birth. Tenotomy, by a surgeon of this city, gave him relief. After the head was straightened some of the muscles of the eye were found to be weak; this was corrected by an oculist in New York, as was also an existing myopic astigmatism. Mr. A. was still unable to study with comfort, and had to leave college. When he came to me his eyes were painful, and soon gave out when he attempted to use them. I found the muscles and glasses correct. He gave a history of a series of attacks of acute coryza, with nasal obstruction. I found the nasal septum deflected very much to the left, closing, with the assistance of an engorged inferior turbinated bone, that side of the nose completely. A very large turbinated engorgement closed the cavity on the right side, the passage of air through the nose being thereby rendered almost impossible. With the galvano-cautery and chromic acid, all engorged nasal tissue was removed, and to-day he reads with as great comfort as he ever did. His improvement can be attributed to no other cause, since no other treatment was employed.

Mrs. S. comes to me complaining of pain in the left eye. Vision for distance is perfect. She is fifty years old, but is able to read the finest print with spectacles. The ophthalmoscope shows no lesion. I find both nares filled with polypi, the left side being the more occluded. These were removed by means of the cold snare, with relief to all discomfort in the left eye. In an article just written, and about to be published, I refer to two cases characterized by edema of the lids and conjunctiva, with great discomfort in and about the eyes, which is the result of the application of chromic acid to the nasal mucous membrane. All patients complain more of pain in the eye than in the nose, when this escharotic is applied to the lining of the latter. I meet almost daily in practice with cases of conjunctivitis and of keratitis (the phlyctenular form especially) which do not yield to treatment until after an existing nasal catarrh or eczema of the nose is relieved.

In the the paper above mentioned, attention is called to certain cases of glaucoma which have been relieved by stretching the nasal branch of the fifth nerve, and the theory is set forth that these cases may possibly be the result of chronic nasal disease. Watery and photophobic eyes are the almost constant accompaniment of the reflex act known as sneezing.

All oculists have seen affections of the eye as a result of diseased and irritable teeth. I have

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[*] Read before the Louisville Clinical Society, March 15, 1887

had two cases of acute conjunctivitis, in the last two months, which were the result of teething. The nerve connection between the eye and teeth is no more intimate than that between the nose and the eye. The nasal branch of the ophthalmic supplies the mucous membrane covering the forepart of the septum of the nose, the forepart of the outer wall of the nares, as far as the inferior spongy bone, and joins the facial nerve. Meckhel's or the spheno-palatine ganglion is the center of distribution of the nasal nerves. This ganglion has a motor root, the large petrosal of the facial, which joins the vidian nerve, a sympathetic root from the carotid plexus, and a sensory root from the fifth nerve. The branches of this ganglion supply or go to the optic nerve, the sixth nerve, the ophthalmic ganglion, which gives off the short ciliary nerves; the mucous membrane which covers the inferior and middle turbinated bones, lining of posterior ethmoidal cells, nasal septum, mucous membrane behind the incisor teeth, back part of roof of nose, the eustachian tube, and pharynx behind eustachian tube; through a ganglionic branch that enters the ophthalmic ganglion it gives off the long ciliary nerves, and with the infra-trochlear branch supplies the integument of the side of the nose, the conjunctiva, lachrymal sac, and caruncula lachrymalis. From this it will be observed how close the nerve connection is between the nose, where the branches of the great sympathetic are so superficial, and the eyeball and its appendages.

I feel sure, if in many of the cases of so-called asthenopia the nose be examined closely, the cause will be discovered, and in many cases easily removed. It is in the anterior part of the nose especially that the offending lesion must be looked for, but it may be deeper seated.

LOUISVILLE.

BISMUTH SUBIODIDE.—This is intended to replace iodoform. Iodine fused with bismuth forms bismuth iodide. Boiling the latter with water leads to the precipitation of the subiodide as a fine powder. It, like iodol, is said to be inodorous, and yet to be equally as effective as iodoform as an antiseptic.—*London Lancet.*

MALARIAL ANASARCA.

BY G. L. POPE, M. D.

This complication of malarial disease has received but little attention from medical writers. Why this should be so, I am unable to say. The disease is certainly met with sufficient frequency and is of a nature serious enough to demand more than passing notice.

It is much more prevalent in the Southern than in the Northern States. Here we find malaria in all its manifestations; especially is this true of what is known as the "Swamp"—geographically speaking, the Yazoo Valley.

It is not my intention to enter into a discussion of the natural history of malaria. I shall confine myself to this particular malady.

This anasarca is usually the result of chronic malaria, but I have seen it in a few instances appear in the acute type of the fever. It is not the result of any organic disease, but a seepage of serum through the arterioles and venules, occasioned by the loss of tonicity or relaxation of the vessels, and is one of the results of the great depression induced by malaria.

The condition in question is almost entirely confined to the negro race. Of thirty cases I have had under my care, but one was in the person of a white. Why it should occur in the negro so often, and so seldom in the white, is a mystery quite as inexplicable as the fact that malarial hematuria occurs usually in the white and seldom in the negro.

The duration of this disease I have been unable to determine. Some have recovered in two or three weeks, while others have been afflicted with it for as many months. The symptoms are well marked.

There is always a history of malaria, either acute or chronic. The tongue is large, white, and flabby; head, back, and legs aching. A sticky disagreeable taste is noted in the mouth on awakening from sleep. The bowels are torpid. The pulse-rate is from 100 to 140 per minute; temperature from 100° to 103° or 104° F. The heart sounds are normal, and cardiac action is not out of keeping with the amount of fever present. The urine is generally high-colored and scanty; under chemical analysis it yields negative results.

The edematous swelling may be confined to any part of the body or limbs or may be general with ascites.

In two cases, one of which died, the other now slowly recovering, there was edema of the lungs, with cough; the expectorated matter consisted of mucus and blood. There was also edema of the face, neck, shoulders, arms, hands, penis, scrotum, legs, and feet, and ascites to a marked degree. In two others, there was ascites with edema of the lower extremities. In the majority of cases there is only edema of the face, hands, and lower extremities, and ascites more or less.

The prognosis I would consider to be fairly good. Of the thirty cases, two resulted in death; twenty-five in complete recovery; while three are not yet terminated. Under favorable circumstances, and where the patient can get proper nourishment and nursing, I think the majority of cases will recover. In two cases, the patients being children aged three and five years respectively, the anasarca came on when they were convalescent from a remittent fever of about ten days' standing. Both recovered entirely without any treatment, except tonics and a good rich diet.

Prophylaxis and Treatment. Prophylaxis consists of a general care of the health during the seasons wherein malaria is rife. Quinine should be taken in sufficient quantities to eliminate the latent malaria, and this should be followed by tonics such as quinine, iron, and strychnine.

Treatment. I usually give two or three doses of calomel and sodium bicarb. sufficiently large to bring about a copious action of the bowels. If there be much fever, I give quinine in five or ten-grain doses, with ten or twenty grains of the hyposulphite of sodium, every two or three hours, until the temperature is reduced to normal.

Should there be a low grade of fever, I give less quinine and at longer intervals; but the hyposulphite of sodium is given in the same quantities and at the same intervals. In the chronic form I give just enough quinine to keep the patient on the verge of cinchonism, but of the hyposulphite ten or twenty grains, three or four times daily, enough to cause two or three copious watery actions. Sometimes, in scanty urination, I give also acetate of potassium and digitalis.

We have in the hyposulphite of sodium a remedial agent of great efficacy in malarial diseases. It is a very good antiperiodic febrifuge, and in large and repeated doses a hydrogogue cathartic of no mean properties.

After the malaria is eliminated, the tonic, such as above mentioned, will meet all the requirements of the case. The tonic should not be exhibited in the form of a fancy elixir, but after the old fashion, as, for instance:

Quinine sul...........................	ʒ ss;
Tinc. ferri chlor..	ʒ iij;
Tinc. nuc. vom........................	ʒ iij;
Aq. pura, q. s........................	℥ iv.

M. S: Teaspoonful three times daily.

STONEVILLE, MISS.

CHRONIC ENTROPIUM—REPORT OF THREE CASES.

BY J. F. DUNCAN, M. D.

Mr. B.'s family, living not far from this place, and consisting of father, mother, and several children, have been the victims, for several years, of a peculiar and seemingly contagious affection of the eyes. They have been treated by numerous physicians for granulated lids, but without relief.

The father has been afflicted ever since he came home from the late war, where he served as hospital steward; his eyes have never given very serious trouble, but are a constant source of annoyance. He has had some palliative treatment, iodide potassium giving temporary relief. The mother is affected in the same way.

CASE 1. James B., aged thirty-one years, has been afflicted for twenty years; first began with simple granulated lids, which resisted all treatment and soon became chronic. He applied to me April, 1886; and upon examination I found the sight entirely destroyed in left eye, and right eye so far gone that he was hardly able to distinguish light from darkness. The lids had become greatly thickened in both the cutaneous and subcutaneous tissue, as was also the conjunctival membrane: the result was shortening of the contiguous margins to such an extent as to infringe seriously upon the eye, and the lashes on both lids were turned in so as to sweep across the cornea with every movement of the lid. I explained the case as well as I could, telling him of the danger of delay, and suggested an operation as the only means of relief, to which he readily consented. I operated on the 9th April. With the entropium forceps I grasped the skin of the upper lid, being careful to take up all the surplus, when I clipped it away with sharp scissors; with a tenaculum I picked up the fibers of the orbicularis muscle and clipped a portion of them away; then, to relieve the tension of the cartilage, I took out the wedge-shaped piece (after Snellen) and after cutting the free margins between the lashes and meibomian follicles from the inner canthus to the outer angle, I put three stitches in the lid over the cartilage, being careful to include the subcutaneous tissue. Both eyes were treated alike and dressed with absorbent cotton and the ordinary head bandage. Ether was the anesthetic used.

Case 2. Miss B., sister of above, twenty-three years old, was operated on in same manner. She had suffered for twelve years with photophobia, and was almost blind, not being able to do any work.

Case 3. Miss B., also a sister, applied for treatment January, 31, 1887. With the assistance of Dr. E. Wamb, I operated in the same manner as above, with an additional canthoplasty on both eyes; the lower lids had also to be operated on, since they were as troublesome as the upper.

Chloroform was used in the last two cases. I removed the stitches in all the cases after three days; recovery was rapid, the wounds healing by first intention, and all have been so far restored to sight as to be able to read coarse print and do ordinary work.

The history of these cases would seem to testify that the disease contracted by the father while in the army was of contagious character.

Woodbury, Ky.

Fluorine, which has so long resisted isolation, has been procured in the free state.

Societies.

LOUISVILLE MEDICAL SOCIETY.

Stated Meeting, March 3, 1887, William Bailey, M. D., President, in the chair.

Dr. Edward von Donhoff read a paper on Chronic Serous Synovitis (Hydrarthrus). (See page 193.)

Discussion: Dr. A. Morgan Vance: I have seen many cases of this affection, and my experience in its management leads me to agree with the essayist that simple synovitis is not dangerous to life. Dr. Donhoff has failed to mention one point of etiological interest in these cases, namely, that the disease seldom occurs in patients who are not below par as to health. I have not found injections into the joint harmful in synovitis. I saw recently, with Dr. Douglas Morton, a case to the point. One ounce of tincture of iodine was injected into the joint, and the result was most favorable. The synovitis in this case was due to syphilis. I would aspirate without compunction, being careful to have the needle clean. I never attempt to reduce the inflammation by means of cold, but apply the posterior splint and secure rest to the joint. The results of this method of treatment have as a rule been favorable. I believe measures looking to the improvement of the general health are of great importance, if not the best means at our command for favorably affecting the diseased joint.

Dr. Wm. L. Rodman: In the main I agree with the essayist. The only treatment I have tried is the fixed dressing. Tonics, fresh air, and pressure are the means of treatment indicated in most instances, and will usually secure good results.

Dr. Keegan: Care should be taken that the pressure on the prominent bony structures be light, or gangrene may supervene. A suitable dressing is made with sponges wrung out of hot water and placed upon the prominences; over these the bandage is then applied. Rheumatism and sprains are capable of producing the disease.

Dr. D. T. Smith: I have treated several cases of synovitis by counter-irritation, rest, and pressure, with appropriate constitutional treatment. They got well in a reasonable length of time. I believe that this experience is the rule. There are probably but few cases of joint disease with effusion in which there is not some degree of inflammation. There is no line of demarkation between the serous and purulent form of the disease, but an insensible gradation. While in some cases the collection in the joints may be purely serous, this fluid almost always contains leucocytes, while in many cases there is an admixture of blood and endothelial cells with the exuded fluid. Each case would have to be treated by the surgeon according to the existing conditions.

Dr. von Donhoff, closing the discussion, said: Dr. Smith does not make the distinction between a catarrhal state of the synovial sac and an intermediate condition constituting a kind of bastard purulent synovitis, which may show under the microscope some increase of the vascular elements of the membrane. If called to see such a case I would expect to find pain, reflex contractions, and some constitutional disturbances. In the absence of these I should regard the case as one of a simple dropsical effusion. My paper states that in inflammatory conditions of synovial structures there is always more or less marked increase of vascular elements, and new connective-tissue formations together with epithelial detritus and pus. There is also the invariable attendant, reflex muscular contraction, with local tenderness and at times intense febrile complications.

On the contrary, in simple dropsical effusion (non-inflammatory) the accession is slow, essentially chronic, painless from the beginning, and likely to remain so, unless the accumulation is so great as to exercise painful pressure. In this condition the vessels are unduly tortuous, but their number is not increased. The tendency of nearly all effusions of this character is to spontaneous disappearance, while the opposite is true of the inflammatory effusion, associated as it is with general constitutional apathy. Syphilitic complications disappear under appropriate treatment, or sometimes spontaneously.

Dr. Turner Anderson: What is the value of the floating patella as a diagnostic sign?

Dr. von Donhoff: This symptom is common to all effusions in or about the joint, from a slight edema of the connective tissue about it to a large effusion within it; to the most skillful diagnostician it is generally only suggestive, rarely indicative.

Aspiration of joints, together with application of cold and rest, is a less hazardous means of treatment in synovitis than external pressure and fixation; the former in my experience has never been associated with troublous sequences, while the latter is known to have been followed, at times, by a gangrenous destruction of tissue. The injection of iodine ordinarily results in mischief. Billroth has twice done the operation, but declines its further practice.

As a rule he has found it sufficient to employ counter-irritation, such as flying blisters, striping with hot iron, compound tincture of iodine, etc., adding to this good food, some form of iodides internally, and rest for the limb.

Failing in these and the repeated use of the aspirator, he has successfully resorted to the knife, laying open the sac, closing it by sutures, hermetically sealing it, and then applying fixed dressings.

S. G. DABNEY, M. D.,
Secretary.

LOUISVILLE CLINICAL SOCIETY.

Stated Meeting, March 15, 1887, J. A. Ouchterlony, M. D., President, in the chair.

Dr. Samuel Brandeis read a translation from the *Berlin Med. Woch.*, subject, New Drugs. There is now a movement to resuscitate drugs once in use, which have undeservedly fallen into disuse. The active ingredients of such drugs have in modern times been extracted, and in this form placed upon the market; but the objection to these is the readiness with which they decompose, and their lack of uniformity in strength. Spartium-scoparia, introduced by Mead and Culson, was used years ago in Europe as a diuretic and laxative. The seed has purgative properties; the leaves are diuretic. The decoction, dose, two tablespoonfuls, repeated every two hours, is useful in dropsy and anasarca. Two alkaloids are obtained from the plant. One, scoparine, is diuretic, while the sparteine acts upon the central nervous system and the heart. The latter is therefore to be recommended where muscular degeneration exists, and in dyspnea due to heart lesion, when the pulse becomes irregular and intermittent as the result of the exhibition of digitalis. The alkaloid as a diuretic is less efficient than the decoction of the drug.

Kawa-kawa has been used experimentally, and its narcotic effect demonstrated. Its curative effect in gonorrhea has been conceded. In two cases of cystitis, with spasmodic irritation of the neck of the bladder complicated by orchitis, the spasmodic pains and dysuria were speedily arrested. Ten centigrams (about 2 grains) of the alcoholic extract, representing one gram (15½ grains) of the drug, may be given in pill form. Forty to eighty centigrams (6 to 13 grains) may be given in twenty-four hours without causing general systemic disturbance. A general feeling of physical and mental comfort was experienced by those who took the drug. The gonorrhea was cured without injection.

From the urine, after the use of kawa-kawa, two bodies were recovered, kawatine and a resinous body, both of which when applied to the eye produced local anesthesia.

Another drug which has found its way from Brazil to Europe is the milk alvelos. It is the sap obtained from a species of euphorbia. It is reccommended as a remedy against cancerous ulcers.

Velaso asserted that forty to fifty cases of such cancers were cured in from forty to sixty days. The drug destroys the morbid tissue, whereas, on the healthy tissue its application produces a dermatitis. It is applied, either as a pure sap or mixed with vaseline, every three or four days, or even daily if borne with little pain.

Landowsky confirmed these statements after using it on an epithelioma, a cancerous ulcer on the neck of the uterus, and in various syphilitic vegetations.

Dr. W. O. Roberts exhibited a fibroid polypus from the uterus, which he had attempted to remove with a wire ecraseur. The wire (piano wire) broke repeatedly—at last he cut it off with the knife. He has met in practice with three similar cases. The first was a solid tumor, almost a perfect sphere, and about the size of the fist. The pedicle was small, and its division occasioned no hemorrhage. In the second the tumor bled considerably. An examination revealed it as a mass protruding from the mouth of the womb, which led him to suspect a miscarriage. Moderate traction failing to bring it away, a more searching examination was made and the true nature of the mass ascertained. This tumor was removed by the ecraseur without hemorrhage or difficulty. The removal of the tumor presented to-night was followed by much hemorrhage, which was finally controlled by Monsel's solution. In structure it was quite brittle. The speaker asked whether it was customary, in removing these tumors, to use the small obstetric forceps to pull them down. Do not the wires used in the ecraseur break as a rule?

Dr. Brandeis remembered a case wherein the tumor was five or six inches in diameter. He tied a string around it and pulled it down. He has removed five or six uterine fibroids. He has found the piano wire very unreliable; copper wire is much better. He thinks it good practice to cut the pedicle with the scissors. According to Emmet the pedicle is membraneous, easily cut through, and not likely to give rise to serious hemorrhage.

Dr. W. H. Wathen, a guest of the evening, at the request of the Fellows, made some remarks upon this topic. He has used twisted wire, piano wire, and copper wire in the ecraseur. He has found the first two useless. Unless the pedicle be very small, these wires invariably break. He had often succeeded with the serrated scissors (his own invention) when all other means had failed. Although the pedicle is membraneous, we must not forget that it contains blood-vessels which may bleed freely on division. A brittle fibroid is not often encountered. Decomposition is probably the cause of this condition. A strong vulsellum forceps is the best for grasping the tumor. Sometimes the pedicle is very firm, and one can hardly tell where it ends and the parenchymatous tissue of the uterus begins.

Dr. H. A. Cottell reported that a specimen of urine, passed by a patient suffering with chronic tubular nephritis, and recently examined by him, showed, under the microscope, oil globules in quantity sufficient to pass for a thin emulsion. There were many casts in the sediment, some of which were packed with oil globules. The urine was highly albuminous. The case came to light in the practice of Dr. Turner Anderson.

Dr. W. Cheatham read a paper on Nasal Reflexes as a Cause of Diseases of the Eye. (See page 195.)

Dr. Roberts reported a case of a little child that had a discharge from the nose and ears. Both he and Dr. Cheatham, who saw the case in consultation, were satisfied of the diphtheritic nature of the trouble. Insufflation of boric acid, iodol, and sulphur were used. Edema of the lids occurred without conjunctival redness. This swelling is perhaps due to the use of the powder, or more probably is a reflex condition.

Dr. J. A. Ouchterlony read the reports of two cases of nephroraphia and congenital anuria. (See page 213.)

Dr. Leber had read of two cases of floating kidney, on whom an English surgeon had operated for their relief. One case occurring in his own practice, the subject a woman, had been cured by frequent pregnancies. He does not see reason for operating for this complaint, as it rarely causes serious trouble.

Dr. Ouchterlony agreed with Dr. Leber in general, but in this particular case the operation was done to relieve the severe pain occasioned by the floating kidney. Dr. O. said that floating kidney is not so rare as is generally believed. He has seen a number of cases in practice. We recognize such cases only when the patient complains of symptoms indicating the trouble, and we are thus led to make careful search for the deformity. Almost all his cases were in women, and in all the displaced kidney was on the right side.

Dr. Bloom called attention to an explanation usually given of the floating kidney's being on the right side. It is due to the fact that the renal artery is longer on this side, and thus allows of greater mobility.

Dr. Ouchterlony read a report of a case of suspected cancer of the kidney, with diagrams illustrative of former cases.

Dr. Brandeis said that, according to Peter, if one kidney is attacked by disease, and its functions impaired, the other performs them vicariously, and no indication of the disease is given by the urine. Enlarged spleen displaces the intestines, pushing them downward. Enlarged kidney results in no marked displacement. This point is useful in differentiating between enlargement of the kidney and spleen; it simply pushes them forward.

Dr. Ouchterlony said that Rokitansky does not agree with Peter, that compensatory enlargement of one kidney occurs when the other is affected; further, he has never seen, in dead-houses or elsewhere, malignant disease of the spleen which had occurred primarily.

Dr. Leber referred to a case of malignant disease of the right kidney, seen at the City Hospital some years ago. There was vomiting, great pains, and ascites; the ascites making the diagnosis difficult. In this case the liver was displaced. He aspirated—sanguineous fluid only was obtained. Ziemssen says that when this is the result of aspiration malignant disease may be suspected.

Dr. Ouchterlony said, in conlusion: In malignant disease of the kidney we have in the urine no evidence of disturbance in the function of this organ except when intercurrent hematuria occurs. This is the rule. He thinks percussion and bimanual manipulation are of the greatest importance in the differential diagnosis of abdominal tumors. In this way it is often possible to make out the difference between tumors of the kidney and spleen, especially if the patient be much emaciated.

Dr. Brandeis delivered a brief eulogium upon the life and character of the late Dr. Stanhope P. Breckinridge, well known to many of the Fellows. Upon his motion the Society paid appropriate tribute to the memory of this talented and accomplished physician.

I. N. BLOOM, M. D.,
Secretary.

A HINT IN DILATATION OF THE ESOPHAGUS. In dilating strictures in the upper portion of the esophagus, Dr. J. Solis Cohen finds the passage of instruments much facilitated by forcibly drawing the larynx and trachea forward between the thumb and fingers of the disengaged hand, at the moment that the obstruction is reached by the dilating instrument.

Reviews and Bibliography.

The Science and the Art of Obstetrics. By Theophilus Parvin, M. D., LL. D., Professor of Obstetrics and Diseases of Women and Children in Jefferson Medical College, Philadelphia, and one of the Obstetricians to the Philadelphia Hospital. Illustrated with two hundred and fourteen wood-cuts and a colored plate. 8vo, pp. 701. Philadelphia: Lea Brothers & Co. 1886.

In his preface Prof. Parvin informs the reader that "this work was begun five years ago, and a task, that then seemed comparatively easy, grew in difficulty as the author proceeded in his effort to present a clear and, as far as the limits of such a volume permit, a complete exposition of the Science and the Art of Obstetrics." Such a statement leads the reader at once into the hopeful state of mind that he will find the matter of the book carefully selected from the author's own and other teachers' experience, that the matter will be well digested and arranged, that irrelevant and redundant material will be omitted, and that the sound substance will be logically presented so as to afford an instructive compend of the midwifery of the past, and a thorough delineation of the science and the art of obstetrics of the present. The reader, thus inspired by the author's opening words to anticipate these good things, will not be disappointed. One finds no carelessness in the preparation of the text, no indiligence in examining authorities, nor incapacity in selecting their pertinent teachings, no unbalanced advocacy of new doctrines simply because they are new, nor no routine rejections of old views simply because they are old; but the author appears to have been eminently successful in his endeavor "to present the most recent information relating to obstetrics, at the same time not overlooking important truths established by past experience."

There are other works on midwifery that proclaim their authors' personal views and professional dogmas with more point and earnestness than this, but there is not in the language a treatise on the subject which so completely and intelligently gleans the whole field of obstetric literature, giving the reader the winnowed wheat in concise and well-jointed phrase, in language of exceptional purity and strength.

A thorough student always, a close observer from a practicing stand-point for the third of a century, and a critical teacher for a score of years, Prof. Parvin has conscientiously devoted the accomplishments of his culture to the preparation of his book, and its readers will have the benefit of a work full of the riches of an erudite, author enthused with his labor and wisely wedded to the true therein as he sees it.

Perhaps it is not stepping outside the bounds of conceded facts to suggest that every specialism has a tendency to inspire its devotees to rate its relative importance too high, and lead them into the promulgation and practice of new measures beyond the true; and while obstetrics is a department of medicine rather than a specialism, its disciples also, in the past some years, have been pushing its art notably in advance of the warrant of its science. In the best of the more recent works in this department their authors have, at first sight of their teaching, seemed to indicate that no woman could be delivered of the fruit of her womb, or survive as a puerpera, unless attended by an accoucheur, a sort of obstetric Admirable Crichton in professional accomplishments, bearing with him an armamentarium that implied the impossibility of a natural labor. Prof. Parvin has entitled himself to the favorable consideration of the general practitioner, and all pregnant women, by having done something to indicate that the doctor who answers the call to a parturient woman, with only the ordinary means of meeting her possible difficulties, is not the ignorant, inhuman monster the high artists would have the world believe. But Prof. Parvin would have been entitled to an additional meed of praise if he had done additional pruning in this behalf.

Prof. Parvin separates the body of his treatise into five parts. Part I, on the "Anatomy and Physiology of the Female Sexual Organs," has three chapters and covers eighty-four pages. The first chapter is descriptive of the pelvis, and is illustrated with twenty-two wood-cuts; the second chapter on the "female sexual organs" is illustrated with thirty-one wood-cuts; and the third chapter on "puberty, ovulation, and menstruation" has seven illustrations. These subjects are all treated in an admirable style, and with a perspicuity of language that leaves nothing to desire.

Part II, on "Pregnancy," begins with "conception," and embryology is continued through two chapters, followed with the changes in the maternal organism, the signs and diagnosis of pregnancy. The author, recognizing both the importance and the difficulties of the diagnosis of pregnancy, classifies the signs under the two heads of subjective and objective, and under each designation merely mentions the many symptoms that have had consideration, but are without value, and dwells on those that are essential, carefully estimating the positive, relative, and associate importance of each, and assuring that the highest significance is to be attached to the sounds of the fetal heart, heard sometimes as early as at the end of the third month, and after the fourth month fails in less than one per cent.

The two chapters on "the pathology of pregnancy—intercurrent diseases and traumatisms—diseases that are exaggerations of physiological conditions, or otherwise dependent upon pregnancy," are a thoroughly instructive review of the subjects covered by the compound title. The consideration of these disturbances is concluded with a study of albuminuria, and, because of their close relationship, the succeeding chapter is on eclampsia, which the author regards as generally, not always, due to uremia, and the frequency of which in this country is estimated at one in two hundred and fifty to three hundred pregnancies, and the mortality of which is, maternal, thirty per cent; fetal, fifty per cent. The etiology of eclampsia is elaborately presented, and the treatment given all the consideration the gravity of the disorder demands.

Abortion, another of the accidents of pregnancy, for which the medical attendant should have full preparation, is treated of as a subdivision of one of the chapters on "Diseases of the Ovum." Its frequency, statistically estimated, is given as one to five labors, but the author assigns reasons for the belief that this is less than the reality. The treatment of this accident is minutely detailed, and is undoubtedly orthodox according to the canons of high obstetric art; but this is one of the fields wherein there is room for an opinion that art has overleaped the boundaries of science. There is scarcely a disorder of the human system wherein there is greater need of a clear perception of the natural course of the aberrent activity as a just foundation of establishing the kind and extent of artificial interference than in miscarriages, and it is a point substantially ignored in other text-books on the subject, and not adequately recognized in this. True, our author says, "But when a miscarriage occurs in the period from seven to ten weeks, and immediately after the expulsion of the embryo the cervical canal closes, what practice is to be pursued? Some insist upon immediately emptying the uterus by means, if necessary, of instruments, either forceps, curettes, or Simon's spoon. Certainly, when incomplete, it carries with it serious dangers, but hasty interference is not free from peril; the appendages are retained either because still attached to the uterus, or because of the obstacle presented by the narrowed cervix. If the attachment prevents their discharge, they are a part of the living uterus, and tearing them away in itself is a traumatism, while rude efforts in this process may inflict additional traumatism, and as fragments are almost inevitably left behind, the detachment is incomplete; moreover, their presence in the uterus may for a time give rise to no symptoms." This informs us that the author, for the time, had risen above the *ex cathedra* teachings of the book-makers, and was looking at the situation with an enlightened vision as to the recuperative powers of nature; but he speedily loses his vantage, and the sentence following the quotation is this: "But, on the other hand, if partial or complete detachment has occurred, there will be hemorrhage; or, if retention is permitted for a day or two in addition to the hemorrhage, there may be an offensive discharge. Now, the indications for active interference are unequivocal, and delay is perilous." Why perilous from hemorrhage or from sepsis, or both? Hemorrhage is an affair to be seen, not inferred, and how is one to know of the partial or complete separation of the appendages, unless by examination; and if this be made, it opens the way for the entrance of the germs of the offensive discharge, which, as stated elsewhere in the volume, must be admitted in some way from the outside, or they do not appear in the womb. They are not of internal origin. Probably the discharge does not become offensive until it passes the vulva, unless there has been artificial opening of the passage to the womb, and hence if the antiseptic be addressed to this point, no sepsis disturbs. In short, the practice should not be to prophesy what ills may happen, and then treat the prophecy instead of the facts; but if something be left in the womb, remember that its presence "may for a time give rise to no symptoms," and further find comfort in the rational treatment, and authority for it, in this selection from the author: "I can fully adopt the words of that wise obstetrician, the late Dr. Churchill, 'Longer experience has made me less fearful of leaving these cases to nature, and more unwilling to interfere hastily.'"

Placenta previa is studied under the title, "Ectopic Development of the Placenta," and its frequency is approximately stated at one in 12,000 pregnancies, and the mortality, maternal, twenty-five to thirty per cent; fetal, fifty to seventy per cent. In the management of this alarming disaster the opinions of over thirty authorities are quoted, and the whole summed up in such wise that the reader has the privilege of easy view of the principles on which the true management must rest; he will readily learn that all cases do not call for the same manipulation.

Part III, devoted to "Labor," runs through eight chapters; the third and fourth, on "the conduct of labor," will be counted the center of the book by the advanced student and neophyte in practice, and each will find it a thorough and satisfactory presentation of this important part of the obstetrics. One can but admire the refined delicacy in the bearing of accoucheur toward his patient throughout his attendance inculcated by Prof. Parvin, while at the same time he insists that not one act essential to the best estate of the parturient shall be omitted. These teachings characterize at once the accomplished obstetrician and the thorough gentleman.

After a couple of pages on antisepsis, anesthesia is introduced, the reasons *pro* and *con* relating to its use are recounted, the author announcing a verdict in its favor, and settling upon chloroform as the best agent. Dutertre is quoted for confirmation "that there has not been a single case of death that can be certainly attributed to obstetric anesthesia;" and a little further along the statement is made that "chloroform is preferred by most to ether, because of its pleasanter odor, its prompter action, and the less quantity required. On the other hand, ether is safer." But if chloroform never caused a death, how much safer can ether be?

The details of every thing relating to the conduct of labor are thoughtfully minute, a treatment of the subject most commendable as a general proposition, and yet there is room here for the reflection that the student should have information from some source, that these elaborate details are not observed by the great majority of accoucheurs, and in fact are demanded only in exceptional cases if at all. The tendency of the modern teaching of obstetrics is to create in the student's mind an apprehension of evil at every confinement, and this tinges his conduct with an anxiety that is apt to have its influence on the mind of the parturient in such wise as to jeopardize that state of calm and hopeful trust that should be cultivated in every pregnant woman who is not known to have something amiss.

"Pathology of Labor" extends through four chapters, and covers eighty-seven pages, and its consideration is thorough. *Post-partum* hemorrhage is an important theme in these chapters, and its terrors are tersely stated, the urgency of immediate and intelligent attention recognized and directed. All the usual methods are described, and efforts at discriminating their respective values is made; but there is here, again, some shortage in pointing out how much may be wisely intrusted to nature.

Part IV treats of "The Puerperal State," which, according to the author, includes all the time required for the return of the genital organs to their condition prior to pregnancy, that is, about six weeks. As on other topics, the instructions for management are full, though the author does not claim that the accoucheur must give his professional attention throughout this period, but in his "concluding remarks," he says "the physician ought, if practicable, to visit the puerpera daily for the first week, and afterward occasionally during the next three or four weeks." Add to the "if practicable" in this quotation the words "if necessary," and the sentence would then fairly constitute the rule that governs the general practitioner in this department of his work.

Part V—Obstetric Operations—brings all these operative affairs into a continuous narrative. The fifth chapter is on "the cesarean operation and its substitutes," and contains the announcement that in the twelve months ending June, 1886, Leopold and Sauger had performed sixteen gastro-hysterotomies, saving 93.7 per cent of mothers and 100 per cent of children. This is surely an encouraging progress for the contemplation of those who may be victims of the condition demanding that heretofore desperate operation, cesarean section.

In conclusion, it may be stated that the arrangement of the matter of this work is unique, and exceedingly favorable for an agreeable unfolding of the science and the art of obstetrics, and the division of its contents into parts, chapters, and numerous subheads renders it of facile reference for any particular point; and these, with the fullness of consideration of every legitimate topic in obstetrics set forth in classical English, constitute this new book the easy superior of any single work among its predecessors for even the student or practitioner seeking the best thought of the day in this department of medicine. The volume is handsomely printed in clear type, on good paper, and neatly bound. J. F. H.

A Compend of Electricity and its Medical and Surgical Uses. By CHARLES F. MASON, M. D., Assistant Surgeon, United States Army. With an Introduction by CHARLES H. MAY, M. D. (Medical Briefs, No. 3.) 16mo, pp. 108, cloth. Philadelphia: P. Blakiston, Son & Co. 1887.

Any clever attempt on the part of the book-maker to condense into small space the substance of this science, whose literature has grown into such unwieldy proportions, will be appreciated by the student and general practitioner.

The work under notice is certainly a clever attempt in this direction, but it is to be regretted that the author should have had the limits of his space too strictly prescribed, since he has been compelled to take too much for granted in the intellectual equipment of his reader. Many points essential to the comprehension of electric phenomena are omitted from the work, while not a few of the topics discussed are treated so briefly as to leave the student in the dark as to their import. To one, however, who has a rudimentary knowledge of the physics of electricity the book will prove both interesting and instructive.

A Practical Treatise on Obstetrics. Vol. 1 (4 vols): Anatomy of the Internal and External Genitals, Phyisological Phenomena (Menstruation and Fecundation). By A. CHARPENTIER, M. D., Paris. Illustrated with lithographic plates and wood engravings. Volume 1 of the Cyclopedia of Obstetrics and Gynecology (12 vols.), issued monthly during 1887. New York: Wm. Wood & Co.

The work of Charpentier on obstetrics is the most complete in any language; and though a rigid exponent of the views peculiar to the French schools in all questions wherein there is a diversity of opinion, the author never fails to state fairly the conflicting views held in different parts of the scientific world.

It goes without the saying that no valuable obstetric procedure coming within the scope of the subject treated has failed to receive its due share of attention.

On speculative points Dr. Charpentier attempts very little that is original, which is rather an advantage than otherwise, for there is always danger that the originator of theories will find more of interest in them than he can communicate to his readers.

Of the stock puzzles in obstetrics, he presents all the solutions that have been proposed by eminent writers, generally along with judicious conclusions of his own.

Menstruation and ovulation he considers as one, giving at the same time the views of those who oppose this doctrine.

In regard to the nature of the hymen he accepts the conclusion of Budin, that it is formed by a continuation of the muscular coat of the vagina. The causes leading to labor are treated at length, but the conclusions reached are not satisfactory.

A host of authors are cited, with their various theories, to account for the habitual presentation of the fetal head at birth, but Pajot is finally credited with the merit of having first formulated the law of fetal accommodation. This is, that "when one solid body is contained in another, and if the latter is alternately in a state of motion and of repose, and if the surfaces are rounded and smooth, the included body constantly tends to accommodate its shape and dimensions to the shape and capacity of the containing body." We feel safe in saying that all this theory lacks of fitness for classification with the classic obstetric errors is age. We see no reason to believe that the theory proposed in this journal during the past year is not the true one, namely, "That head presentations in the young of man and animals are determined by the necessary effects of natural swimming motions of the fetus *in utero* in connection with the increasing conicalness of the vaginal segment of the uterus as gestation advances; the human fetus using mostly the legs and diving down to the outlet, the animal exerting natural walking movements and swimming upward to the outlet."

In accounting for rotation, Pajot is again commended as having presented the most rational explanation, which is contained in the exact words of his formula already given, when treating of presentations, and here the application seems to us more nearly correct.

A better formula, however, is, we think, offered by the standard statement of a physical principle that a body moves along the line of the least resistance.

The width of the posterior section of the pelvis is greatest; it is altogether the line of least resistance, and will therefore be sought both by the anterior and posterior surfaces of the fetal ovoid. But since the anterior part of the ovoid presents the most resisting surface, it will prevail and force the smoother vertex forward.

In common with the entire French school Charpentier condemns Credé's method of placental expression; and while it must be acknowledged that he evidences some prepossession in the matter, to put it mildly, his American editor, Dr. Grandin, perhaps leans as far the other way. For when he tells us that the compressive force must be directed as far as possible in the *axis* of the uterus, we believe he utters a precept that is positively dangerous and as much calculated to lead to harm as the plate in Lusk's very excellent work, which shows in an impossible position the expressing hand. The editor's note on the great danger of moderately drawing on the cord exhibits a baseless fear. The placenta lies rolled up in the uterus, and will slip out in form when the cord is gently pulled upon, whether this is attached to the edge or the middle of the organ.

The work abounds in excellent and timely illustrations. It is fully entitled to the high rank to which it lays claim.

Annual Report of the New York State Reformatory, at Elmira, for 1886.

Ninth Annual Report of the Presbyterian Eye, Ear, and Throat Charity Hospital, Baltimore. 1886.

A Successful Case of Partial Excision of the Larynx. By Lennox Browne, F. R. C. S. Ed. 1887. Reprint.

Report of the Special Committee on the Disinfection of Rags. American Public Health Association. 1886.

Litholapaxy in Male Children and Male Adults. By Surgeon-Major D. F. Keegan, M. D., Dublin. Reprint. 1886.

A Text-Book of Diseases of the Skin. By T. McCall Anderson, M. D., assisted by Dr. James Christie, Dr. Hector C. Cameron, and Dr. William McEwen. With colored plates and numerous wood engravings. 8vo, 650 pages. Cloth, $4.50; leather, $5.50. Philadelphia: P. Blakiston, Son & Co. 1887.

The Baltimore Microscopical Society has elected the following officers for 1887-8. President, Prof. George L. Smith; Secretary and Treasurer, Dr. R. T. Wilson. The Society meets on the third Monday evening of each month.

A Mixed Form of Atrophic and Hypertrophic Catarrhal Inflammation and its Treatment. By. P. W. Logan, M. D., Knoxville, Tenn. Reprint.

Annual Address delivered before the American Academy of Medicine at Pittsburgh, Pennsylvania, Oct. 12, 1886. A. S. Sutton, A. M., M. D., LL. D., of Pittsburgh, Pa., President of the Academy.

Quiz Compend of Surgery, for Students and Physicians. By Orville Hornsby, B. S., M. D., Demonstrator of Anatomy in Jefferson Medical College, etc. Third edition, pp. 201. Philadelphia: P. Blakiston, Son & Co. 1887.

A Contribution to the Study of the Operation of Shortening the Round Ligament—Alexander's Operation. By Thos. Ashby, M. D., Professor of Gynecology in the Baltimore Polyclinic and Post-graduate Medical School, etc. 1887. Reprint.

Proceedings of the National Conference of State Boards of Health, at the third annual meeting, held at Toronto, Canada, Oct. 4, 1886. Published for distribution by the State Board of Health for Kentucky. Pages 82. Indianapolis: William B. Burford. 1887.

Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

It may be remembered that shortly before Christmas a meeting was held at the Mansion House to inaugurate a subscription in aid of Guy's Hospital. The reason why "Guy's" is in want of money is simple and easily stated. Unlike most of its fellows, the old hospital in the Borough is not supported by voluntary contributions. Almost the whole of its income is derived from the munificent bequests of the Lombard-street money lender, who was its original founder, and of its second founder, William Hunt, who gave nearly two hundred thousand pounds to the hospital. Hunt's legacy, as well as Guy's, was invested in land, chiefly in Lincolnshire, Essex, and other agricultural counties. Thanks to its vast endowment, and the careful management of its estates by successive treasurers, Guy's was long able to carry on its good work without being under the necessity of distracting the energies of its staff by constant appeals to the charitable public. But the last few years have seriously diminished the value of real estate in England, and Guy's has shared the common lot of English landlords. In 1875 it reckoned its annual income at no less than forty-one thousand five hundred pounds; to-day it is not much more than half that sum. The result is that the managers find themselves in great straits. Already it has been necessary to reduce the number of beds by over two hundred, and the governors now see themselves confronted with the prospects of being obliged to prescribe further reductions, unless their appeal for a hundred thousand pounds is speedily answered. So far they have no reason to complain of the public generosity. Up to the present about forty-six thousand pounds have been subscribed. This includes the handsome sum of five thousand seven hundred and thirty pounds collected from the members of the Stock Exchange during the course of one day, as well as a donation of six thousand pounds sent in by Sir Arthur Guinness the same day. But forty-six thousand pounds is less than half the amount which the governors regard as the minimum increase to their capital, if they are to carry on the work of the hospital without further curtailment or reduction. Such reduction they truly describe as a "calamitous measure," for a calamity it would be to the vast and crowded population which is dependent on the hospital for medical and surgical assistance in serious cases. Guy's ministers to a larger district than that coming within the sphere of operations of any other metropolitan medical institute. South London is infinitely worse off as regards such accommodation than its neighbor north of the bridges, and Guy's is the only hospital within reach of the great working-class population inhabiting the southeastern districts. Between London and Gravesend there is no institution of the kind, so that the inhabitants of the manufacturing and semi-nautical districts of Rotherhithe, Southwark, and Deptford, with the outlying Kentish villages, are all among the clients of Guy's

At the late meeting of the Society of Arts the address was upon the progress that had been made in sanitation since the accession of Her Majesty, as being the most fitting to the Jubilee year of those branches of usefulness to which the proceedings of the Society had contributed. A terrible picture was drawn of the dwellings of the poor in the year 1837, when drainage and pure water-supply were, except in a few large towns, practically non-existent, when the necessity for ventilation was entirely disregarded, and when in Manchester one tenth and in Liverpool one seventh of the population lived in cellars. The system of registering deaths and their causes, introduced that year, directed attention to the necessity for adequate remedies for this state of things, illustrating the value of statistics in furnishing facts on which legislation could be founded. The information thus acquired led to the report of the Poor Law Commissioners of 1839–42, in which sanitary principles were laid down which have since become matters of ordinary practice. This report, however, would not have been acted on but for the approach of cholera in 1848, when an act was passed creating a General Board of Health, one of whose members was the late Lord Shaftesbury, to whose untiring efforts, both in and out of Parliament, much of the improved social condition of the people is due. After referring to the improvements which have been effected throughout the country by this and subsequent acts, the speaker spoke of the change which had come over London during Her Majesty's reign. Undoubtedly now the finest capital in the world, it had, he said, from its situation, all the attributes of a healthy city, lying as it did in a valley through whose center the Thames sweeps from west to east, the winds rushing over which furnished a continuous supply of fresh air to the center of the city. But these advantages had been largely frustrated by the unopposed efforts of landowners to accumulate the greatest number of houses on the least possible space. He dealt with the difficulties London had to struggle with in effecting improvements, in having had no municipal government outside the city, and spoke of the benefits conferred by the Metropolitan Board of Works. The changes effected would make the reign of Queen Victoria stand out as an important epoch, changes in effecting which the late Prince Consort took so large a part, and the chief feature of that reign would be the improvement it had produced in the mortality and the well-being of her people.

Dr. A. Carpenter recently pinned his faith to irrigation as being the best means of treating sewage. If the sewers of large towns, he said, were properly constructed there would be no difficulty on the score of putridity. He pointed out that the prejudice against milk obtained from a sewage farm was unfounded, and stated that it had been consumed at Croydon with perfect safety. There should be no odor from the process of irrigation if those who conducted it did their duty. With regard to cattle, the sewage farm to which he particularly referred produced one of the finest herds in the country. It was a mistake to suppose that a sewage farm should get water-logged, even in the case of heavy rain. If it did so it was the fault of mismanagement, and he protested against the idea that any kind of treatment with chemicals at the outfalls is likely to prevent the sewage matter from putrefying in the river.

The proposal to present Sir Andrew Clarke a testimonial in recognition of his distinguished services to the London Hospital and Medical School is receiving a large amount of support, not only among his colleagues and former pupils, but from many distinguished laymen, including H. R. H. the Duke of Cambridge.

Some interesting clinical observations on "induration" in the primary lesion of syphilis in women have been made in three thousand three hundred cases examined in the Albert Hospital, Devonport. It appears that induration in women is not often clearly marked off from the surrounding tissues, but is usually diffused a considerable distance into the tissues around. The most typical form of primary sore, with its induration resembling a disk of cartilage set in surrounding soft structures, described as being frequent in men, is seldom met with in women. Every variety as to degree of development of induration was met with, but in about one third of the cases it was very slight. Induration was present in the early stage of the sore only in a small proportion of cases. The time of its occurrence was found to be at almost any period of its course. It became most marked and developed toward the middle and latter part in many cases.

LONDON, February, 1887.

NEW YORK LETTER.

Editors American Practitioner and News:

A field-day yesterday. I saw genito-urinary surgery from one until five P. M. I held the penis for Otis. He cut the meatus with a short, straight bistoury. Bull did the same. Otis measures with great care. He is a plain but delightful man. He shows me the utmost kindness. Bull is wonderfully expert. I saw him get a filiform into the bladder, follow it with a Maissoneuve, then an Otis, and cut a man from almost no hole at all up to a thirty-two. He says, "I used to measure as Otis does. Now I put my instrument back as far as it will go, expand it fully, and *pull my knife all the way out.*" He introduces a Jacque at once, and washes out the bladder with corrosive sublimate, one to ten thousand, but says he doubts if it does any good further than the removal of the blood. He is strikingly handsome—iron-gray hair, parted in the middle. He is a trifle stouter, but in voice and manner he is much like Rodman, and indeed in looks as well.

Iodoform is going out. Bull is the only man I have so far seen using it. Boric acid and pyrogallic acid, and of course corrosive sublimate, are the go. I told Bull, also Otis, of my interest in the boric-acid treatment. They were much interested. Bull says, "If you can so sterilize the urine, the millenium is reached."

I am to be in a rush from this on. The rarest genius in New York is Dr. Goodwillie. He has made a great hit in surgery of the facial and cranial bones with the dental drill by a water motor. He reproduces all his cases in plaster or wax. His collection is worth coming to New York to see. He is a born artist, and moreover one of the most agreeable and communicative men I ever saw. I expect to go often to his attractive rooms. He has a scheme for cleansing suppurating cavities and surfaces that beats any thing I ever saw. An immense atmospheric atomizer, fifteen pounds pressure, driving a coarse spray of a fifteen-volume solution of peroxide of hydrogen, the most complete solvent and disorganizer of pus known. He uses occasionally an iodoform ointment, suggested, he said, by Otis. It is so good I give it to you:

℞ Iodoform..........................℥ ss;
Ol. eucalypt.......................℥ ss;
Ol. rosæ.............................♏ xx;
Vaseline.............................℥ iv.

Every body I see uses antiseptics—chiefly corrosive sublimate for instruments and sponges. Wyeth's Surgery is just out—it is a beauty—with all the latest genito-urinary matter. I sent for my urethrotome, to have his improvement put on it. It is a great betterment.

You don't know how proud it makes me to see such men as Wyeth and Gibney, sturdy oaks whose tender planting the old University accomplished. Of course my guiding-star here is John Wyeth. He was my favorite student twenty years ago, and has grown in intellect and worth daily. I have not yet seen him operate, it being his holiday season. He combines three great elements in his nature—long intellectual training, metropolitan culture, and the cordial, unaffected manner of the South.

Half a million people treated annually as charity patients in this magnificent city! Need one go further, especially when in his own tongue, among his own people, and from such affable and apt demonstrators he gathers the great clinical facts that shall the better equip him for his own field of labor?

Monday I went to the Academy of Medicine, Surgical Section, the President, Dr Weir, in the chair.

Dr. Wilkins exhibited half a dozen patients with reunited tendons. Sutures used, silkworm gut; operation under sublimate precaution, result perfect. Dr. Moore introduced a syphilitic subject (female) with aneurism of the arch of the aorta. The President promptly but kindly ruled the case out as non-surgical. The paper of the evening was by Dr. Wyeth, Laparotomy for Sloughing Intestine from Strangulated Hernia. Exsection of the gut and success were the chief points. The operation required four hours; the anesthetic, ether. The point of interest to me, raised by the Secretary of the Society, was this, "Can etherization be maintained four hours without serious injury to the kidneys?" The arguments were strongly adverse to prolonged etherization. New Yorkers are a unit against chloroform, yet they recognize the dangers of ether—dangers remote rather than immediate.

Tuesday I heard Dr. Gerster at the Polyclinic. He is full of enthusiasm. I don't know when I have heard a better teacher. Said a doctor to me, "Did you ever see such hips?" When I laughed an answer, he said, "That's his pocket-case. He wears it, like a cartridge-belt, with straps over his shoulders." His subject was Hydrocele—Volkman's Operation. He is handy with the crayon, and, shaking his forefinger in the faces of his students, he emphasizes every statement and carries conviction to his hearers. Talk about antisepsis! He introduced a case, a woman, simple sarcoma near the internal malleolus, and called on one of the class to remove it. "Now," said he, "we will manage this just like a capital operation. This dress is full of germs; we must not touch it. Give me a basin of 1 to 3000 sublimate, and towels—these two. There are germs here; and as we can not help but touch them, more towels." Towels wrung out of the sublimate now cover every thing except a triangular space with the malleolus and *the wart* exposed. The sarcoma (?) removed, the irrigator is turned on, sublimate 1 to 3000, carbolized sutures, iodoform powder, iodoform gauze, and what would have been simply snipped out twenty years ago has been removed *en rapport* with the modern idea.

Tuesday I called on Austin Flint. I found him surrounded by ledgers. He did not get up when I entered, but said gruffly, "Come in." He looked like a head book-keeper trying to balance the books of his junior assistant gone to Canada for a jaunt. I said, "I am Dr. Palmer, from Louisville." Bang went the ledger, and for half an hour he talked and I talked. Old times and dear "Lunny" Yandell, whom he loved so much, and then schools and school management. He came down to the door saying, "Now, go right up and see Gouley. Don't fail." I did so. Gouley's beard is white as snow, but his face wore the same kindly smile it wore when we first met, now years ago. I spent a pleasant half-hour looking over his instruments and books. He, too, spoke of Lunsford Yandell and Cowling, and also of my father, whose place he took in that little New England school so many years ago.

From Gouley's I pulled up at Dr. Taylor's — "Bob Taylor" they call him. I was met at the top of the stairs by a small, well-fed, gentle-faced man. Said I, "Dr. Taylor, I am from the South. As I come to New York I turn my face to this office as an Oriental devotee turns his face toward Mecca. What Ricord was to Europe Bumstead was to the Western Hemisphere." He took me by the hand and said, "My dear Doctor, those last are my own words, recently spoken."

I dined at the Park Avenue Hotel with Dr. Gibney and his fair New England wife. Gibney is a strong man. I wish that, like Wyeth, he had had not only his first course but his degree with us, so that we could be even more proud of him. He has fine balance, fine reserve power, and is doing handsomely.

Wednesday I went over to Twenty-sixth and East River. I took in the University: interviewed the druggist, and found my ideal arrangement. He is not a professor, not a student, and admits no students into his department. He is a paid pharmacist, who correctly fills the prescriptions of the clinical teachers. Then I went to Bellevue. Nothing in progress. I was struck with the beauty of their lecture hall, also with the smallness of their building—about half the size of ours. At 3:30 I saw "Gil Wylie," as he is called, do a laparotomy in the Marquart, adjoining Bellevue. He is a brilliant operator—a Georgian, formerly Sims' assistant.

In the morning I heard Wyeth lecture and saw him operate. He is quiet but impressive, and exceedingly popular. He operated for hydrocele by carbolic injection (Sandidge's method really, though generally credited to Levis, of Philadelphia). He also injected (carbolic) a pile, at the same time saying that deligation was the best operation. He is great on cocaine, and removed an ingrown toe-nail under it without pain. At 3 P. M. I was again at Bellevue, to see Wylie operate for lacerated cervix. He is certainly a strong man. "The boys" say I must see Harry Sims operate. I hope I may.

After dinner I went to Gouley's to meet Flint and one or two more. We had a good cigar, a glass of beer, cheese and crackers, and old books. I don't know any thing that has done me more good than to hear Austin Flint, while talking of teaching, inveigh, as I have done, against the metric system and the new chemical nomenclature. It is indeed hard to teach an old dog new tricks.

I got a note Friday from Dr. Morrow, editor of the Journal of Cutaneous and Genito-Urinary Diseases, asking me to call Saturday morning. So Saturday at ten o'clock I rang his bell. He is an exceedingly courtly and handsome man; looks a little as Henry McDowell did ten years ago. I go there to dinner to-day. He gave me a letter to a University-of-Louisville man, class of '56, Dr. Sexton, an otologist, splendid physique, elegant manners, and possessed with an intense love for his *alma mater*. He spoke of his college days and the old building before the fire, just as an alien far from childhood's loveland talks of its hills and rivulets. I got away by promising to go back at half-past six for dinner, and hurried over to hear A. R. Robinson on Lupus Vulgaris. The case (a girl of fourteen) was typical, and in the matter of diagnosis by exclusion Prof. Robinson showed himself a master. At 2 P.M. I met Gouley in Ward 30, Bellevue—Venereal Clinic. After a number of minor cases he brought in a case of stricture of small caliber. A No. 2 (English) passed easily, but filiform after filiform refused to find the passage. "Patience and sweet oil" won the day. The whalebone passed, and with a Civiale he cut the "phallic strictures," and with curved steel divulsed the deeper. It was a victory well won—a bad, worrisome case.

A charming dinner at Dr. Sexton's. It was good to hear him talk University. I have seen my old chum, Henry Griswold, twice. He has a fine practice in diseases of women.

SUNDAY, March 20, 1887. E. R. PALMER.

Translations.

THE TYPHOID BACILLUS.—M. Chantemasse (Société Medical des Hôpiteaux, Feb. 25th) stated the result of researches made by himself and M. Widal on the bacillus of typhoid fever.

It is known that drinking-waters contaminated by the dejections of typhoid patients have for a long time been charged with being the vehicle of the typhoid virus. The statistics of Chantemasse show that the number of typhoid-fever patients in the various hospitals, and in particular that of Lariboisiere, has been much augmented whenever the water of the Seine has been distributed instead of the water of the Marne; that is, in the water intended for drinking purposes, which has three sources, Chantemasse has discovered the bacillus of Eberth and of Gaffky. This bacillus has rounded extremities, is very active, and takes the stain badly. It develops in bouillon, better in gelatine, and still better on the potato, where it is discoverable in about three days at the earliest, and often not before the fifteenth day, in the form of a moist train. This slowness of development is quite characteristic of this bacillus. Gaffky has found it twenty-six times in twenty-eight autopsies; Chantemasse, eleven times in twelve autopsies, and in the case where it was not found the patient was convalescent. Development took place at a temperature of from 19° to 43°; when produced at the extreme of 19° there was no longer any sporulation. They multiplied rapidly in pure water, even when sterilized, and they could be collected and cultivated after a stay of three months in the water of the Ouray after having been sterilized. They endure freezing, and may be subjected to a temperature of 45° without being destroyed. They are killed at 80°, and only by some minutes' boiling. They multiply better in a moist soil than in a dry one. As to the action of antiseptics on the typhoid bacillus, the authors have proven that a one-in-twenty-thousand solution of corrosive sublimate arrests the culture. Quinine one in eight hundred produces the same effect, while one in four hundred of carbolic acid does not hinder the culture. When two per cent of hydrochloric acid is added to a culture liquid the culture is greatly checked, but the bacillus is not killed, for on putting some drops into alkaline bouillon they multiply with all their vitality.—*Le Progrès Médical.*

Degeneration of Vaccine. — M. Pourquier, before the Academy of Sciences, reported the result of his experiments on the degeneration of vaccine. He had observed that, in a subject possessed of the maximum of susceptibility to the action of vaccine virus, and inoculated at the same time with virus of different degrees of attenuation, the pustules in extent and duration will accord with the energy of the virus employed. The pustules obtained will develop side by side, without interfering with one another, and each with its peculiar character. This virus inoculated on other subjects will produce an attenuated virus of the character of the pustule from which the inoculation may have been performed. Thus upon the same soil an attenuated and a typical virus develop side by side, preserving each its own characters.—*Ibid.*

Colchicine. — Mairet and Combemalle (Academy of Sciences, February 21st) reported the result of investigations on the properties of colchicine. This substance acts, according to the dose, as a diuretic or purgative, and this in consequence of a congestive or irritative action on the kidneys and the alimentary canal. The effects are most rapid when the colchicine is absorbed from subcutaneous injection. Man is three times more susceptible than the dog to the action of this drug.· Two or three hundredths of a grain is the dose for hypodermic use for the production of diuresis, and five hundredths for a purgative effect. Colchicine increases the excretion of uric acid, thereby reducing its quantity in the blood, and produces a substitutive irritation of the articular surfaces in rheumatic cases; but its cumulative tendency and its marked toxic properties demand prudence in its employment.–*Ibid.*

Diagnosis and Treatment of Intermittent Dropsy of the Knee.—Dr. Ottoman Rosenbach, of Breslau, believes that an exact diagnosis of intermittent or recurrent dropsy of the knee is not yet possible. It is therefore prudent as yet not to emphasize the specific character of this affection, which in fact can also attack other joints. The author regards it as a form of acute or subacute rheumatism of the joints, and regards its great departure from the characteristic features of such diseases as due to a smaller amount of the infectious material, in the localization and in the character of reaction of the individual against the poison. The treatment is to be expectant at first; afterward arsenic, electricity, and injections of ergotine in the neighborhood of the joint may be brought into requisition. The preparations of salicylic acid are to be avoided in all subacute and chronic cases, especially in those running their course without fever. and is to be limited to the beginning of the disease and strong acute exacerbations. It is then to be given in large doses.

Treatment of Fissure of the Anus.—Dr. F. Mendel reports the successful treatment of a number of cases of very painful fissure of the anus with nitrate of silver and ointment. The treatment is begun with a thorough application of the nitrate of silver, which is rendered in a measure painless by the use of a solution of cocaine. He next makes an application of

Boric acid	2.0
Cocaine	1.0
Lanolin	20.0

This is to be applied several times a day with the finger, and kept in place with a small sponge.—*Deutsche Med. Zeitung.*

Treatment of Stricture of the Urethra. Dr. A. LeDenlu, basing his opinions on twenty-four cases of stricture of the urethra treated by dilatation and twenty-four treated with the urethrotome, observed under the same circumstances, comes to the conclusion that far the greater number of cases gradual dilatation at several sittings is the best method of treatment. At all events there is no method which infallibly secures against unfavorable after-effects.

In the twenty-four cases of urethrotomy he had one death, which was attributed to affection of the kidneys, but when the autopsy was held it was found that the superior wall of the urethra was completely cut through and extensive infiltration of urine had taken place. In all he has had two deaths from urethrotomy, and six cases where the result left "much to be desired." Dilatation also furnished two fatal cases, but one of them was operated on *in extremis*, and died uremic and without furnishing any evidence of laceration upon autopsy. In the other there was some laceration, limited, however, to the spot of the stricture. He has found that such small lacerations, though they happen now and then, are covered over again with mucous membrane, and never in his experience result in the production of infiltration of urine. Three cases of dilatation were imperfect in their results. LeDentu emphasizes therefore the grounds of apprehension in internal urethrotomy, and recommends dilatation exclusively in the following cases: (1) Spasmodic strictures (!); (2) inflammatory strictures with chronic urethritis; (3) elastic strictures; (4) peri-urethral cellular infiltration, when external urethrotomy does not appear advisable.—*Wiener. Med. Woch.*

Congenital Anuria.—(Translated by John A. Ouchterlony, A. M., M. D.) The patient was a new-born boy, presumed to have been born two or three weeks too soon. He lived nineteen days and nights without passing any urine. From the tenth day a moderate edema was observed. From the end of the second week there was coma—and convulsions from the sixteenth day. At the autopsy the kidneys were found composed of a mass of small cysts without any microscopic appearance of normal renal tissue. The pelvis, ureter, and urethra were normal. The bladder was of the size of a hazelnut.—*Dr. M. Bockman; Nord. Med. Archiv.*

Result of an Operation for the Cure of Movable Kidney.—(Translated by John A. Ouchterlony, A. M., M. D.) The history of this operation was presented to the Association of Swedish Physicians three years ago.

The patient, a woman, was twenty-one years of age at the time of the operation, and suffered severe pains from a very movable kidney of the right side.

An incision was made in the lumbar region, and after the kidney had been restored to its proper place by manipulation from the abdominal side it was fixed *in situ* by fourteen silk ligatures, two and two together, which by means of a needle were carried through the renal parenchyma and surrounding muscular tissues and aponeuroses; they were then drawn tight, tied, and cut short. No unpleasant symptoms occurred after the operation; the ligatures became completely overgrown, and the womb healed. The painful sensations which had previously troubled the patient disappeared.

During the three years which have since elapsed, the operator has several times examined the patient, and found that there had not been any return of the original difficulty. In so far as the result of a single case may enable one to form an opinion, it is certainly in favor of nephroraphy.

It is, however, important to bear in mind that silk sutures, and not catgut, ought to be used in order to retain the kidney in its proper place.—*Nord. Med. Archiv.*

Benzoate of Soda for Erysipelas.—Haberkorn, believing that the various antiseptics have not an equivalent action that salicylic acid is especially appropriate for infective diseases of the joints, and calomel and corrosive sublimate for intestinal affections, has brought forward benzoate of soda as particularly efficacious for erysipelas, scarlatina, and other infectious diseases with cutaneous localizations. In fifty cases of erysipelas the author has obtained excellent results with the following medication:

He administers from three to five drams of benzoate of soda daily, in a mucilage of seltzer water, and makes no local application. The medicine was kindly borne. The temperature invariably descended to the normal within forty-eight hours; the local manifestations disappeared rapidly, and desquamation was more rapid than usual. In all the cases treated not one was fatal. In two cases in which the progress was slower, the author found the dose as insufficient.—*Rivista Internazionale.*

PROGNOSIS OF CEREBRAL SYPHILIS.—Dr. O. Braus, of Aachen, at the conclusion of a monograph on cerebral syphilis, sums up the result of his experience in the following synopsis:

1. The prognosis of syphilis of the brain is worse than in any other organ.

2. The effectiveness of the mercurial treatment of syphilis is very irregular, and depends upon the timeliness of its employment.

3 The failure of mercurial treatment of a disease of the brain is no evidence that it is not syphilitic, for it is often observed that in cases of disease of the brain along with affections of other organs markedly syphilitic (gummata, exostoses, rupia, serpiginous ulcers, etc.), the latter will disappear under mercurial treatment, while the former will remain uninfluenced.

4. Syphilitic disease of the brain usually, after a certain length of time, induces other organic changes against which antisyphilitic remedies are powerless, and which sooner or later bring the patient to the insane asylum.

5. The author is fully convinced that the treatment of cerebral syphilis is effective only for a certain length of time after its occurrence. While we may have to treat syphilis repeatedly on the re-appearance of its manifestations, the first treatment in these cases decides the fate of the patient, and our reliance must be upon the doubtful success of the first treatment, and not a subsequent one, for here, generally, the conditions have led to organic alterations in the brain.

6. The large majority of patients with syphilis of the brain belong to the classes who sustain themselves by intellectual labor.

7. The danger in cerebral syphilis lies in the local organic changes produced in the brain.

VACCINATION AGAINST SNAKE-BITES.—Prof. Sewell, at the University of Michigan, Ann Arbor, has been carrying out some experiments in Pasteurization, taking for his subject the virus from the sacs of rattlesnakes. By attenuation and cultivation he has succeeded in protecting pigeons and rabbits by inoculation so that they will withstand inoculation of five or six times the strength of uninoculated pigeons or rabbits.—*Medical Record.*

Abstracts and Selections.

TREATMENT OF PNEUMONIA AT THE MASSACHUSETTS GENERAL HOSPITAL.—In acute pneumonia, occurring in previously healthy individuals, the treatment employed by Dr. Minot consists in relieving pain and procuring sleep by appropriate remedies when required, with milk or such other liquid nourishment as the patient is willing to take. When the skin is hot and dry the solution of acetate of ammonia or Dover's powder is ordered. No external applications are made unless the pain should be severe, when weak sinapisms or fomentations are sometimes used. Stimulants are rarely required. In most of these cases little or no medicine is given, the disease being allowed to run its usual course of six to ten days without special interference. The prognosis is almost always favorable.

To patients debilitated by old age, overwork, previous illness, etc., but who are temperate and free from cachexia, alcoholic stimulants and carbonate of ammonia are given as required, with the addition of digitalis, should there be signs of pulmonary obstruction from failure of the heart's action, together with nourishing diet. Under this treatment the majority recover, but the prognosis is much more doubtful than in the preceding class.

A third class of patients comprises the cachectic, including the intemperate, the victims of chronic renal disease or of tubercle, etc., and also those already prostrated by grave acute disease, such as typhoid fever, general bronchitis, and the like, although otherwise previously healthy. In these cases stimulants are freely given; large doses of brandy are easily borne, and sometimes appear to save life. Nourishment in liquid form is also required, but it seems less important than alcohol. External applications requiring frequent changes are avoided, the patient having no strength to spare. A large proportion of these patients die, whatever treatment be adopted.

Dr. F. C. Shattuck believes acute pneumonia to be a general specific disease, of which the pulmonary consolidation is the local manifestation, also that it is self-limited. The treatment, consequently, is at present purely symptomatic. With the abortion of the disease by large doses of quinine, as has been observed by Flint and others, he has no personal experience. Now and then a case undoubtedly occurs in which, especially early in the course of the disease, venesection is clearly called for, but it has not as yet been his fortune to meet such a case. Pneumonia patients are as a rule debilitated to a greater or less degree. Oftentimes the treatment is comprised in mild counter-irritation to the chest, and an opiate to allay cough, ease pain, and promote sleep. In many cases alcoholic stimulants are demanded, and are given in such quantities as are indicated by the pulse and the first sound of the heart. Digitalis and carbonate of ammonia are also used, though less frequently than alcohol. Sponging of the body with alcohol and water is also prescribed with a frequency which depends upon the temperature and the general condition of the patient. At the same time the greatest stress is laid upon careful nursing and judicious alimentation. The bowels are kept open.

INDICATIONS FOR THE USE OF NITRO-GLYCERINE.—Dr. Trussewitsch, in an instructive paper on the use of nitro-glycerine, published in the *St. Petersburg Medicinische Wochenschrift*, points out the value of this drug in various affections—angina pectoris, migraine, and neuralgia (which he describes as angio-neurosis), as also in sea-sickness, some forms of anemia, faintness, palpitation and other diseases—depends upon the existence of an irregular distribution of blood, which condition may be inferred from a certain degree of pallor of the skin, especially of the face, often co-existent with a weak pulse and a small, rigid radial artery, which frequently is situated at some depth. When, on the other hand, headache and neuralgia occur in patients with chronic congestion of the subcutaneous veins of the face, nitro-glycerine is to be avoided, and similarly it is of no use in asthma when the face is reddened in consequence of emphysema. If, however, a pale face exists with angina pectoris, migraine, giddiness, shock, toothache, or sea-sickness, the best results may be looked for by giving nitro-glycerine. The regulating effect of the drug exercises an influence over the congestion of internal organs similar to that brought about by blood-letting, and in these congestions, whether of lung, brain, or kidney, when they are of a temporary character, the pulse is generally found to be slow and of low tension, a fact which, as the author remarks, is sufficiently well known in reference to the fever-free periods of acute hyperemia of the lung and kidney. Dr. Trussewitsch lays down as a rule that the condition of the pulse is the best indication for the employment of nitro-glycerine, and the most trustworthy guide as to the dose with which to commence the treatment. The smaller the radial artery is, the more rapidly it dilates under the action of the drug and the less the secondary effects proceed; on the other hand, the fuller the pulse with a distended radial artery, the less it is affected; and finally, the softer the artery with a weak pulse, the greater the secondary and the less the general effects. Single drop doses of the one-per-cent solution are sufficient in cases of small pulse, but with a full pulse it will be found that the full effects can not be produced with less than two-drop doses. When there is a soft artery with a weak pulse, subnormal doses only should be given—a quarter to half a drop. After the trial dose is given, the patient's sensation of pulsation and pain in the head, as well as the distension of the radial artery under the finger of the physician, will be the guides for increasing the dose. The author finds that the best modes of administering nitro-glycerine are the simple dropping of the solution on the tongue, and by means of tablets. Much less satisfactory results were obtained when given mixed with water.—*The London Lancet.*

CALOMEL AS A DIURETIC.—Jendrássik, of Buda-Pesth, noted a marked diuretic effect from small doses of calomel administered to a syphilitic patient with cardiac dropsy; the diuresis was so abundant and apparently so directly a result of the mercury that he employed the remedy in a series of seven cases, and in all with decided benefit. In the first case there was a mitral lesion with edema of the legs, Cheyne-Stokes breathing, and a very serious general condition. Digitalis and caffeine were no longer effective, and the urine had fallen to twenty-two ounces in the day. On the second day after the administration of the calomel there was diuresis and the amount of urine increased daily until a maximum of two hundred and ninety-seven ounces was reached, and as the dropsy disappeared the quantity gradually became normal. Three weeks later, on return of the dropsy with dyspnea and Cheyne-Stokes respiration, the calomel was again successfully resorted to, and the patient ultimately left the hospital in good condition. From ten to fifteen grains were given daily in divided doses. The effect is not produced if the mercury acts on the bowels, and the diuresis is always preceded by symptoms pointing to the absorption of the medicine, such as the metallic taste, stomatitis, or ptyalism.

Stiller reports equally favorable results in fourteen cases, but he gives smaller doses in the day, seven to ten grains. The diuretic action is not often evident until the third or fourth day. Opium may be added to check diarrhea without interfering with the special effect of the mercury. He considers it a very valuable adjunct to digitalis in the treatment of heart disease.

Mendelssohn confirms these results and gives calomel in cases in which the digitalis is inoperative, or in which it has had to be suspended for fear of its cumulative action. He gives three or four grains three times a day, and the diuresis is usually manifest within forty-eight hours, and before there are signs of absorption.

The mode of action is not very clear, but it is not due to any effect upon the heart, as the contractions are not increased in vigor, nor is the arterial tension raised. It is apparently a direct effect of the mercury on the kidneys. Longuet calls attention to the fact that Stokes recommended calomel in cases of dilatation of the heart with congestion of the lungs and liver, cardiac asthma, and dropsy, and noted great diuresis with rapid disappearance of the anasarca. There is certainly clinical evidence of sufficient weight to warrant a full trial of this method at the hands of the profession.—*Medical News.*

ANTIPYRIN IN HEMICRANIA.—Ungar, of Hamburg, writes that antipyrin is more rapid and certain in its effects in hemicrania than the salicylate of sodium. In the beginning of the attack, and in its prodromal stage, the remedy had an abortive effect or made the paroxysms much milder than usual. Patients who were generally obliged to forego their usual occupations, and who could not sit up during the attack, were generally able to go about with comfort. Taken after the inception of the attack, and when it had developed considerable intensity, antipyrin had still a most favorable effect. Among the patients were those who had tried all other known remedies without result. Antipyrin, however, will not relieve, in all cases, the distressing symptoms of hemicrania; there are patients with whom it has no effect, and others who are upon one occasion benefited, and who receive no relief in another trial of the remedy.

In those cases in which antipyrin acted favorably a dose of fifteen grains, once administered, was generally sufficient; exceptionally, twenty-three grains were given once. Its good effects were usually manifested in one hour after taking, and when this was not the case, the first dose was repeated, and good results rarely failed. It was generally ordered in capsules or wafers. Dangerous or unpleasant effects were not observed after its use.—*Centralblatt für die gesammte Therapie; Medical News.*

ELECTRICITY IN EPILEPSY.—Dr. A. D. Rockwell, of the New York Academy of Medicine, read a paper on electricity in epilepsy, in the course of which he was asked whether, under any circumstances, that agent alone was capable of curing the disease. He answered that, although he had never heard of such a case, he was by no means prepared to say that such a result was impossible, or even highly improbable. But he would confidently say that electricity was of much value in the treatment of epilepsy. His conclusions, based upon thirteen years of observation, were as follows:

1. Electricity possesses a certain value in the treatment of epilepsy. It is not known nor is it claimed that, used alone, it can ever cure epilepsy. When, however, it is used in connection with the bromides its value is unmistakable, and a certain number of patients recover who would otherwise remain uncured.

2. The good effects of electricity are seen especially in cases in which the attacks occur in the night, although day attacks have been successfully controlled.

3. Central galvanization and general faradization have been the most efficacious methods employed.

4. When electricity fails to cure, or aid the cure, it is often efficacious, by the method of general galvanization, in affording grateful relief from undefinable nervous symptoms, recognized under the term, neurasthenia.

5. The tolerance of bromides can be increased, and bromic acne diminished by the systematic use of electricity.

6. Electrical treatment must be administered with care and judgment. All interruptions of the current should be avoided in central galvanization, as the shock is liable to hasten rather than prevent an attack.—*Weekly Medical Review.*

NEW OPERATION FOR PROLAPSUS UTERI.—A Mexican medical journal gives an account of an operation practiced by Dr. Malanco for the purpose of forming a kind of false uterine ligament in cases of prolapsus. It consists in passing a trocar from the anterior vaginal fornix to the abdominal wall (taking care, of course, to avoid the bladder), and in applying the actual cautery to the track by means of a thermo-cautery inserted through the canula from the front. The proceeding, which was first proposed by Dr. Fenelon, of Mexico, is stated to have been employed several times with the most successsul results.—*London Lancet.*

PEROXIDE OF HYDROGEN IN WHOOPING-COUGH.—Dr. Benjamin Ward Richardson, in The Asclepiad states that he has treated nine cases of whooping-cough with peroxide of hydrogen exclusively, in six males and three females, all children. The solution was given in doses of a fluid dram five or six times a day. The remedy in this affection has a decided value. Commencing with it in the acute stages of the disease, and trusting to it alone, he has never seen pertussis cut short so quickly and determinately by any mode of treatment except change of air. It subdues the spasmodic paroxysm, checks the secretion in the throat, and shortens the period of the malady, lessening thereby the dangers of after-effects. The mode of prescibing it is:

Hydrogen peroxide (10 vols. strength) ʒvj;
Glycerine, pure............................ ʒiv;
Water, distilled, to.............. .... ℥iij.

To mix and make a solution of three fluid ounces, of which let half a fluid ounce be taken in a wineglassful of water as directed.

When there is stridulous spasm with the cough he substitutes ozonic ether ʒij for the solution of the peroxide, or adds it to the mixture.

Treatment of Diphtheria by Pilocarpine.—Dr. Lax has treated ten patients for diphtheria with pilocarpine with good results. They were treated exclusively by pilocarpine and all recovered, although some of the cases were very severe.

Under the influence of pilocarpine the mucous and salivary secretion greatly increased; great quantities of diphtheritic membrane were expelled by the throat and nose; respiration became more free; fever disappeared; the children regained appetite, and recovered in from three to five days, at the close of the attack all manifesting a characteristic eruption of herpes labialis. The following is the formula employed by the writer:

Pilocarpin. hydrochlorat... gr. ⅛ to ⅗;
Pepsinæ........................ gr. 10 to 12;
Acid. hydrochloric.......... gtt. 2 to 3;
Aquæ destill.................... ʒ 17½.

Of this mixture a teaspoonful or tablespoonful was taken in wine, and warm fomentations were applied to the throat. At the end of the third day the diphtheritic membrane upon the tonsils and pillows of the fauces had disappeared.

Guttmann has treated in a year and a half eighty-on · cases of diphtheria by pilocarpine without the loss of a patient. Gelsner and Dilewshy have also had good results in desperate cases without this treatment. The formula given may be varied as each case indicates, and also its dosage.—*Therapeutic Gazette.*

The German Commission on Vaccination. The length of time for which vaccination protects against smallpox varies greatly in different persons, but in the mean it is about ten years. Revaccination is necessary ten years after primary operation. Two well-marked vesicles are necessary to insure a successful protective vaccination.

The use of animal vaccine is preferable. Vaccination should not be performed while scarlet fever, measles, diphtheria, whooping-cough, typhus, or erysipelas is epidemic, or unusually prevalent in the neighborhood. Infants should not be vaccinated before they are three months old, unless smallpox is prevalent in the vicinity.

The greatest care as to the cleanliness and disinfection of the instruments used for vaccinating is insisted on.—*Medical Progress.*

Diphtheria.—In a discussion on diphtheria Guttmann held that when the larynx is affected it is always secondary to the fauces, but that there is a true croup of the larynx which is primary. Henoch did not agree; he held that an ordinary case of laryngitis, if severe enough, can end in membrane; he had seen several such cases; he had often seen croupous membrane upon the fauces and larynx with diphtheritic membrane at bifurcation of the trachea, and hence concluded that they were different stages of the same process.—*London Medical Record.*

Biniodide of Mercury as an Emmenagogue.—Dr. C. R. Illingworth writes, in the Lancet, that the red iodide of mercury is a certain and safe emmenagogue. He prescribes it as follows:

Sol. cor. sub. (gr. ss. to ℥ j)...... ℥ j;
Potass. iodid........... ... . ʒ ss;
Ferri ammon. citrat...... .... ʒ j;
Ether. chlorici.......... .... ʒ ij;
Aquam..........................ad. ℥ viij.

S: A tablespoonful three times a day after meals.

Freckles.—Halkins states that in carbolic acid we have a certain cure for freckles. The skin, first washed and dried, is stretched with two fingers of the left hand, and each freckle is carefully touched with a drop of pure carbolic acid, which is allowed to dry on the skin. Under its action the part becomes white and burns for a few minutes. In from eight to ten days the cauterized scale falls off, and the spot, at first a rose-red, soon assumes its natural color. *Edinburgh Medical Journal.*

Iodide of Potassium in the Treatment of Diphtheria.—Dr. L. Stepp (*Deutsche Med. Wochenschrift*) recommends iodide of potassium in diphtheria. Mercury has been given in various forms and doses in diphtheria and croup, though without any good results, as, owing to its poisonous properties, sufficiently large doses can not be given to destroy bacteria in the blood. Its action is only efficacious in syphilis. In diphtheria the incubation period is from two to five days, and serious symptoms develop rapidly. Iodine seems to be the only suitable medicine; and probably still larger doses are required in diphtheria than in syphilis. These two diseases resemble each other, in that they both have a tendency to encroach on the bucco-pharyngeal mucous membrane, and thereby affect the neighboring glands. Iodide of potassium is decomposed in the organism, and iodine remains in the blood and other liquid elements, and in the glands, where it amalgamates with albuminoid molecules, and possibly with bacteria; in any case, it sterilizes media in which bacteria develop. Dr. Stepp mentions one case of diphtheria out of many which he has treated with iodide of potassium. The patient, a girl aged seven, who had been ill for three days, had a very thick false membrane in the pharynx, the glands of the neck were involved, the pulse was weak, and the temperature high. Iodide of potassium was given. At the end of the week the child was completely cured. A boy, aged seven, in whom diphtheria had come on three days previously, was treated in the same way. A teaspoonful of a solution (pot. iodide, 46 grains; water, 4 ounces) was given every hour. Two days after the treatment was begun, the temperature was lower, and the general condition better, though there was no apparent change in the state of the pharynx. Twenty-four hours later, the child's condition became alarming; there was cyanosis of the cheeks and lips, the pulse was 140 to 160, and the little patient fell into a condition of apathy. No medicine has been given for fifteen hours, as the smell of the iodine had caused nausea. The following mixture was then ordered: Iodide of potassium, 100 grams; water, 20 grams; syrup of orange-peel, 20 grams. (!!!!) A teaspoonful every hour, night and day. Tokay wine was also ordered at intervals. On the fourth day of the new treatment, the patient's condition was greatly improved, and the pulse was stronger. A teaspoonful of the solution of 5 grams of iodide of potassium in 120 grams of water was given. On the fifth day the temperature was lower, but the swelling of the neck and the false membrane in the pharynx remained unchanged. Eight grams of iodide in 120 grams of water were then given in doses, a teaspoonful every hour; on the following day the dose was increased to 10 grams of iodide. On the seventh day, the false membrane became detached, the cough was looser, and there was less hoarseness, while the infiltration of the neck had disappeared. The pulse was 132, the temperature 38.3° C., and the general condition satisfactory.

On the eighth day the temperature rose to 39° C. toward evening, but fell on the ninth day; the false membranes had disappeared, and the cough was not so hard, though the voice remained rather hoarse. Complete convalescence was established on the tenth day. In the course of one week the child had taken 50 grams of iodide of potassium.

There have been no subsequent symptoms, either as regards the digestive organs or the nervous system.—*British Medical Journal.*

TREATMENT OF CYSTITIS.—Reliquet recommends the following: Morning and evening a general bath of tepid water. An hour after the bath the following suppository should be introduced in the rectum:

Iodoform	gr. jss;
Ext. hyoscyami	gr. j;
Olei theobrome	gr. xlv.

When urethral discharge exists take morning and night one pill of

Terpine	gr. jss.

divided into ten pills.—*Nouveaux Remèdes.*

TREATMENT OF EMPHYSEMA AND CATARRHAL BRONCHITIS.—Dujardin-Beaumetz recommends the following:

Potass. iodidi	ʒiv;
Aquæ	℥viij.

Teaspoonful or tablespoonful in a glass of beer at the commencement of each meal. Also at each meal three capsules of terpinol. Baths of compressed air.—*Nouveaux Remèdes.*

ANGINA PECTORIS. — Iodide of sodium is highly recommended by Hichoed in the treatment of angina. Laschkevitch (*Rev. de Méd.*) speaks highly of the effect of cocaine in doses of from one half to one third of a grain three times a day.

TREATMENT OF SCIATICA.—Dr. Metcalf, of New York, says that no prescription for sciatica has ever equaled in efficacy the following: ℞. Tinc. aconit. rad., tinct. colchic. sem., tinct. belladonna, āā ʒ j. M. Sig: Dose, six drops every six hours. He also uses triturate tablets, each containing three drops of the following: Tincture of aconite root, tincture of seeds of colchicum, tincture of belladonna, tincture of actea racemosa — equal parts by volume. Dose, one every four or eight hours.—*Journal of American Medical Association.*

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. III. SATURDAY, APRIL 2, 1887. No. 7

D. W. YANDELL, M. D.,
H. A. COTTELL, M. D., - - - Editors.
D. T. SMITH, M. D.,

A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

Books for review, and all communications relating to the columns of the journal, should be addressed to the EDITORS OF THE AMERICAN PRACTITIONER AND NEWS, Louisville, Ky.

Subscriptions and advertisements received, specimen copies and bound volumes for sale by the undersigned, to whom remittances may be sent by postal money order, bank check, or registered letter. Address

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HOMEOPATHY, ITS PAST, PRESENT AND FUTURE TREATMENT.

At the meeting of the Rhode Island Medical Society, commemorative of its seventy-fifth anniversary, the venerable Dr. Henry I. Bowditch delivered by invitation the annual address. Taking for his subject "The past, present, and future treatment of homeopathy, eclecticism, and kindred delusions which may hereafter arise in the medical profession, as viewed from the stand-points of the history of medicine and of personal experience," Dr. Bowditch points out what he conceives to be the mistakes of the regular profession in its behavior toward these sects in medicine.

Expressing his disapproval of the action of the American Medical Association and its Judicial Council, in requiring all the Fellows at each annual meeting to solemnly promise that they will behave in a prescribed way for the ensuing year, or, "in default of so signing, to be deprived of the delights of mutual acts of friendship, and of scientific interchange of thought on subjects connected with our noble profession," as acts of intolerance which remind him of Medieval clerical tryanny, he proceeds to show how homeopathy, with all its absurdities, as well as eclecticism were the natural result of a reaction against the arrant nonsense exhibited by our fathers in the so-called good old times of our art.

The author draws some vivid pictures of these absurd and destructive practices, and proceeds to show that in many respects, even in the ranks of the regular profession, there was a reaction against them scarcely less marked than that found in the other schools.

"Let me," says the speaker, "first turn to the condition of medical practice two and a half centuries ago, and see if we can draw any important inferences therefrom. I hold in my hand a pharmacopeia published at Cologne in 1627. It is evidently an official document. Now, I defy any one to read the various prescriptions laid down in that pharmacopeia without a feeling of hearty disgust at the absurd and heterogeneous compounds prepared for the use of the profession of that day. One of these recipes is styled a 'most subtle powder' (*pulvis subtilitissimus*). It was compounded by a certain holy abbot for the son of the Duke Don Nicolas, whoever that worthy may have been. It has no less than fifty four ingredients, only two or three of which would we deem of any efficiency.

"Now, I ask of all reasonable men present this pregnant question: When the profession practiced such absurdities, can it be wondered at that a rebound in the human intellect in antagonism to regular medicine would surely take place, and that a simpler pharmacy would arise? Nay, more; can not you anticipate that, according to the pendulum-swinging course always noticed in the progress of human opinion, the *infinitesimal* of a *single* remedy was prophesied by such absurd polypharmacy as was practiced by our own immediate progenitors? The one compelled the other. . . . But let us look at medical practice nearer the present hour. Bleeding and the pernicious abuse of mercury to great salivation, with an utter contempt of nature as the real healer of disease, was the order of the day even when I began my studies. . . . Do you wonder that when such horrible treatment was pursued by our fathers, that not only did the homeopaths, but likewise many of the "regulars," eschew all venesection?

In truth, if I were to look into your pockets now, I should, I presume, find evidence, from the absence of the lancet, that you have gone to the absurdity of the homeopaths, in that you *never* bleed. . . . Homeopathy, with its preposterous infinitesimal dilutions, and eclecticism, with its horror of bleeding, come naturally up as foils to our equally extravagant customs of the opposite kind. This historical view of the subject has always led me to view homeopathy and its kindred delusions with a certain kind of placidity. . . . Such sinners from the true path of rational medicine did not merit the severe treatment they received. Rather, we should have taken the infinitesimal grain of truth which they had to bring to true medicine. We should have looked to our own methods and corrected them, rather than have maltreated those persons who not only opposed our heroic and worse than ridiculous proceedings but set up equally absurd methods of their own. By simple reason and due allowance of time, they would have fallen back into the profession, and would have been no more seen."

Dr. Bowditch then read an earnest letter from Prof. James Jackson, who, at the date of its writing (1857), was Professor of Theory and Practice of Medicine in Harvard. The writer makes strong argument in favor of consulting with all legal practioners; and, justifying himself in so doing, says, in closing: "Such as it is [the letter], you will feel yourself at liberty to show it to any of our brethren, but I must insist that neither the whole nor any part of it shall be put in print. That might subject me to controversies, which I think I have a right to avoid."

In the course of this letter Dr. Jackson declares: "I hold that men are not to be proscribed for their opinions on medical subjects any more than for their opinions on religious or political subjects. It does not belong to the present day and to the people of New England to proscribe or to persecute men for their opinions."

Dr. Bowditch proceeds: "I thank God that when, subsequently to the date of the preceding letter, the question of expulsion of the homeopaths came up in the Massachusetts Medical Society, I voted 'nay' against an overwhelming vote to expel them. I said to one who is now a professor of the Harvard School, and had voted 'aye,' you have done the best thing possible for the homeopaths, for now they can play the *rôle* of martyrs for conscience sake. He replied, 'No, Doctor, we have only saved the Massachusetts Medical Society.' My prophecy has been more than realized. By the sympathies excited among the laity, by our worse than foolish persecutions, we have built up their sectarian schools and hospitals, and the words homeopath, eclectic, and regular, have become the watchwords for contending parties. In spite of the opposition of the 'orthodox brethren,' the homeopathic and eclectic practitioners begin to take their places on boards of health, etc., by the side of the *regulars*."

Dr. Bowditch says that he has never voluntarily consulted with either of these sects. When asked to consult with a homeopath he has replied, "It would be useless for us to meet, because I have no faith in his system, and if he does not believe in it, *while claiming to be a homeopathist*, he acts wrongly, and, for that reason, I do not wish to meet him in consultation." Having given expression to his views of the present and past treatment of the sects, Dr. Bowditch asks, "What can we do now for the future?" In answer to this question, he suggests the adoption of four practical measures:

"1. Let every State society follow the lead of New York, and let the members be *allowed*, without injury to their status in these bodies, to consult with members of other 'legally constituted' medical societies.

"2. Let members of either of these sects join our State societies, provided they prove to the State examiners or censors that they have studied medicine a proper length of time, and are able to pass the examination required of all applicants for admission; and provided, moreover, they agree to cease to call themselves by any peculiar name because they desire to enroll themselves as members of our time honored profession.

"3. Let us endeavor to make the American Medical Association rescind the vote whereby it expelled the New York State Medical Society, simply because, by its resolutions, it intimated that the fight between the regular profession and homeopathy had lasted long enough, and that hereafter consultations would be allowed to all 'legalized medical bodies.'

"4. As interweaved and intimately connected with this controversy, let us, on all proper occasions, by all means in our power, endeavor to induce the American Medical Association to annul the illegal action of the Judicial Council requiring an annual signature by all the members to its so-called code of ethics, under the penalty of not being allowed to attend and take part in the friendly intercourse and scientific discussions of its meetings, a measure which tends to keep alive our divisions and encroaches upon our individual rights of conscience, instead of promoting that harmony in the profession of America which the Association, by its great power for good, might bring about at these annual meetings in various parts of the country."

Notes and Queries.

Editors American Practitioner and News:

Having seen in the medical journals of late considerable discussion relative to the probable influences which determine sex in procreation, I submit a few thoughts which have occurred to me with reference to the same. To my mind it does not seem unlikely that sex, or at least the elements producing sex, exists in the spermatozoid of the male prior to conception; that it is an inherent property or quality derived exclusively from the male independent of any condition of the female.

The ovule, it would seem (if we are allowed to reason from analogy in this), is merely a vehicle, so to speak, for the development of the spermatozoid, as the soil is the vehicle for the development of the grain which is sown in it—the soil not imparting to the grain any additional quality or property, but merely serving as a condition for development of that which already exists.

That there is a rudimentary life existing in the spermatozoid prior even to emission would seem evident from the motion it is capable of making; and if there is a rudimentary life, may there not be all the elements or qualities of what it is to be when fully developed; merely needing the conditions for development, as in the case of the grain above mentioned.

If there be nothing about the ovule that would indicate an endowment of capacities similar to those of the spermatozoid, it would point to the above conclusion. The idea will doubtless seem quite absurd to many, but I would be glad to have an expression of the views of some of the profession on this point.

J. M. CURTIS, M. D

SUMMIT, MISS., March 16, 1887.

THE KENTUCKY STATE MEDICAL SOCIETY. The Secretary issues, under date of April 1st, a timely reminder of the near approach of the coming meeting at Paducah, stating that every arrangement is making for the transportation, comfort, and social enjoyment of the members; of whom he begs early attention to the preparation of reports and papers, that the scientific work at the June meeting may in no manner be suffered to fall behind that of previous years. Members should send at once, if pospossible, the titles of papers in preparation to

STEELE BAILEY, M. D.,
STANFORD, KY. *Permanent Secretary.*

To the Medical Profession:

A PROPOSITION TO TRANSLATE AND PUBLISH THE MEDICINE AND HYGIENE OF THE TALMUD.—Ever since the publication of my address on "Jewish Hygiene and Diet, the Talmud, and various other Jewish writings heretofore untranslated," delivered before the American Medical Association in 1884 at Washington, D. C., I have constantly been urged by the profession to translate and publish the medical and hygienical portion of this "wonderful" compilation, the Talmud. I therefore beg to state to the profession that I have concluded to translate and publish from the Talmud everything relating to medicine, providing that prior to the undertaking I can receive one thousand subscribers for the book. Such subscriptions may be addressed to me in the following words: I, the undersigned, agree to take one (or more) copy of the Talmudic Medicine of Dr. von Klein, which shall not exceed five dollars in cost for five hundred octavo pages, or at one dollar per each hundred pages, payable at delivery.

Under no other circumstances will I undertake this labor, which must be traced from "hundreds of thousands of copies," and which has heretofore not been accomplished by any living man. No more will be published than the number subscribed, and fifty extra copies for distribution to the principal medical journals for review.

CARL H. VON KLEIN.

DAYTON, O., 110 E. Second Street.

AMERICAN MEDICAL ASSOCIATION. — The thirty-eighth annual session will be held in Chicago, Ill., on Tuesday, Wednesday, Thursday, and Friday, June 7th, 8th, 9th and 10th, commencing on Tuesday, at 11 A. M.

"The delegates shall receive their appointment from permanently organized State medical societies, and such county and district medical societies *as are recognized by representation in their respective State societies*, and from the Medical Department of the Army and Navy, and the Marine Hospital Service of the United States.

"Each State, county, and district medical society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number: Provided, however, that the number of delegates for any particular State, territory, county, city, or town, shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association."

Secretaries of medical societies are requested to forward, at once, lists of their delegates.

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the secretaries are, by special resolution, requested to send to him, annually, a corrected list of the membership of their respective societies.

SECTIONS.

"The chairmen of the several Sections shall prepare and read, in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective sections." (By-laws, Art. II., sec. 4.)

Practice of Medicine, Materia Medica, and Physiology, Dr. J. S. Lynch, Baltimore, Md., Chairman; Dr. J. B. Marvin, Louisville, Ky., Secretary.

Obstetrics and Diseases of Women and Children, Dr. F. M. Johnson, Kansas City, Iowa, Chairman; Dr. W. W. Jaggard, Chicago, Ill., Secretary.

Surgery and Anatomy, Dr. H. H. Mudd, St. Louis, Mo., Chairman; Dr. A. M. Pollock, Pittsburgh, Pa., Secretary.

State Medicine, Dr. Geo. H. Rohe, Baltimore, Md., Chairman; Dr. Walter Wyman, United States Marine Hospital, New York, Secretary.

Ophthalmology, Otology, and Laryngology, Dr. X. C. Scott, Cleveland, Ohio, Chairman; Dr. J. H. Thompson, Kansas City, Mo., Secretary.

Diseases of Children, Dr. DeLaskie Miller, Chicago, Ill., Chairman; Dr. W. B. Lawrence, Batesville, Ark., Secretary.

Oral and Dental Surgery, Dr. John S. Marshall, Chicago, Ill., Chairman; Dr. A. E. Baldwin, Chicago, Ill., Secretary.

Medical Jurisprudence, Dr. I. N. Quimby, Jersey City, N. J., Chairman; Dr. H. H. Kimball, Minneapolis, Minn., Secretary.

A member desiring to read a paper before a Section should forward the paper, or its *title* and *length* (not to exceed twenty minutes in reading), to the Chairman of the Committee of Arrangements at least one month before the meeting. (By-laws.)

Committee of Arrangements, Dr. Charles Gilman Smith, Chicago, Ill., Chairman.

Amendment to By-laws: Create a new Section, to be known as the Section on Dermatology and Venereal Diseases.

WM. B. ATKINSON,
Permanent Secretary.

CASTOR OIL.—Florida is following Louisiana in the attempt to make money out of the *Ricinus communis*. A firm in that State are preparing 320 acres to be planted in castor beans, and next year an oil mill will be erected.

The American System of Gynecology, which for some time past has figured among the more important announcements of Messrs. Lea Brothers & Co., of Philadelphia, we are glad to learn, is well through the press, and may be expected shortly.

Numbering among its contributors such prominent authorities as Professors Barker, Battey, Engelmann, Garrigues, Goodell, Reeves Jackson, Lusk, Mundé, Reamy, Thomas, Van de Warker, etc., it will certainly present a thoroughly satisfactory and complete statement of the science in its most recent aspects, and we feel justified in congratulating the profession that what has been peculiarly an American specialty is about to receive from American hands the literary tribute due to it.

The International Medical Congress. J. J. Chisolm, M. D., of Baltimore, Md., has been appointed President of the Section of Ophthalmology of the Ninth International Medical Congress, in the place of Dr. E. Williams, who was compelled to resign on account of ill health. Judson B. Andrews, M. D., Superintendent of the Hospital for the Insane, Buffalo, N. Y., has been appointed to the office of President of the Section of Psychological Medicine and Nervous Diseases, made vacant by the recent death of Dr. John P. Gray. No vacancies now remain in the list of chief officers of the preliminary organization of the Congress or of its Sections.—*Medical and Surgical Reporter.*

A Pleasant Vehicle for Cod-liver Oil. The following formula, as given by "Heder," is said to make a palatable emulsion: Yolks of two eggs; powdered sugar, four ounces; oil of bitter almonds, two drops; orange-flower water, two ounces. Mix carefully, and add to this gradually an equal bulk of cod-liver oil.

I can assure you, that the older I grow the more chary I become in the use of morphine, for despite the marvelous properties of this alkaloid, which is by far the most active of analgesics, its dangers and disadvantages are such that I reserve its employment for exceptional cases.—*Dujardin-Beaumetz.*

Castration of Criminals.—The following is the recommendation of an enthusiastic sociologist who proposes castration as a means of limiting crime. The good effect of this kind of punishment upon the criminal class would be fourfold:

1. No offspring with an inherited tendency to commit crime.

2. An added terror to the punishment inflicted for breaking the laws.

3. A gradual improvement in time of the morals of the public at large, and

4. An improvement in the disposition of the person operated upon.—*Medical News.*

An Example of Abortive Treatment.—To give examples of abortive treatment by germicidal remedies, I might mention that of scarlet fever and diphtheria, where, by the administration of the biniodide of mercury every two hours in solution of potassic iodide, those germs which have found an entrance to the circulation, and whose presence there is indicated by the scarlatinal rash and enlarged cervical and submaxillary glands, are rapidly followed and destroyed, with the grand result of rapid restoration to health and the prevention of those fearful sequelæ to which multitudes have fallen victims.—*Dr. C. R. Illingsworth; London Med. Press.*

Mr. Beecher on the Act of Dying.—Mr. Beecher was once asked by one of his myriad of correspondents: "How shall I feel when I come to die?" The great preacher replied, characteristically: "You will probably feel stupid," referring to the kindly provision of nature in benumbing the faculties when putting her children to their last sleep.—*Med. and Surg. Reporter.*

Dr. William Goodell has resigned the post of Physician-in-Charge of the Preston Retreat at Philadelphia, which he has held for twenty-two years. Dr. Joseph Price has been elected as his successor.

Charcot, as he appears in his hospital with an hysterical patient, is to be the subject of an immense canvas by Broullet for the Paris Salon this year.

AERIAL MICRO-ORGANISMS.—It was no mean achievement to determine that suppurative processes depend on micro-organisms in the air, and even Mr. Lawson Tait, with all his brilliant results in abdominal operations, slyly excludes the presence of the culture media for septic cocci from his hospital, and prevents their introduction from without, before attempting those exhibitions which he calls defiance of the Listerian principle.—*Weekly Medical Review.*

PTYALIN AND MILK FERMENT IN URINE.—Holvotschiner (*Centralblatt für klinische Medicin*) has by experiment with solutions of starch found ptyalin in urine, which, under appropriate conditions, demonstrated its amylolytic power. The ferment was found to be most abundant four or six hours after eating and in the morning urine. With those suffering from gastric and intestinal catarrh it was most abundant in the afternoon.

The milk ferment was found most abundant in the urine passed four to six hours after a meal. In the urine of one or two hours after a meal the ferment is almost absent.—*Medical News.*

CALCULUS AS THE CAUSE OF PERITYPHLITIS. A Swedish surgeon, Dr. Sigurd Lovén, has published the notes of a case of perityphlitis, followed by a tumor in the ileo-cecal region and abscesses opening over the coccyx through the abdominal walls and rectal walls. Ultimately a calculus was passed through the abdominal wound, weighing 79 centigrams, and measuring 2.5 centimeters by 1.3 centimeters. It was composed of alkaline phosphate of lime. Dr. Lovén believes this had existed for a considerable period, and that its situation had been in the vermiform appendix. *Medical and Surgical Reporter.*

PRESCRIPTION FOR ASTHMA.—Dr. Cazenave de la Roche has found iodide of potassium combined with cow's milk a very efficient remedy for asthma. It should be given as follows: Distilled water, ounces, five; iodide of potassium, drams, two. One tablespoonful of the solution in a cup of milk twice a day.—*Weekly Medical Review.*

LIQUID VASELINE FOR SUBCUTANEOUS INJECTIONS.—At a recent meeting of the Société de Thérapeutique, M. Dujardin-Beaumetz referred to the irritating character of many substances which it would otherwise be advantageous to use subcutaneously, and stated that liquid vaseline (*huile de bakouck*) had been found by M. Meunier to be an excellent solvent for many such substances, while it overcame their acridity—even that of carbon sulphide—and was itself innocuous.

THE LION'S SHARE.—The list of officers of Sections of the American Medical Association for the next annual meeting, as published in the Association Journal, shows that of sixteen positions Illinois has four, Missouri three, Maryland two, and New York, Pennsylvania, New Jersey, Ohio, Kentucky, Arkansas, and Minnesota, each one. Two States—Illinois and Missouri—furnish nearly one half of the appointees, the former having one more than the latter.—*Medical News.*

THE INTERNATIONAL MEDICAL CONGRESS. The item appropriating $50,000 for the Congress was placed in the Sundry Civil Appropriation Bill, and was therefore, presumably, passed. If so, this sum will be a great help in promoting the success of the Congress. Several steamship lines have reduced rates to $80, $90, and $100 for the round trip across the Atlantic.

DR. AUSTIN FLINT has been appointed visiting physician to the Bellevue Hospital, in place of the late Dr. Austin Flint, sr., the position having been occupied provisionally during the past year by Dr. H. M. Biggs.—*N. Y. Medical Journal.*

MUST BE THE RIGHT PLACE.—Tramp: "Is this a lying-in hospital, mister?"

Janitor: "Yes, this is a lying-in hospital."

Tramp: "Then I guess it's the right place for me—I've been lying out these three nights."

THE Medical Association of Georgia meets at Atlanta on April 20th.

LAWSON TAIT charges from five guineas to one hundred for an ovariotomy.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. III. [NEW SERIES.] LOUISVILLE, KY., APRIL 16, 1887. NO. 8.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

PULMONARY TUBERCULOSIS; ITS ANTISEPTIC TREATMENT.

An Essay for the Merritt H. Cash Prize.

BY GHISLANI DURANT, M. D., PH. G.

"Man, whose breath is in his nostrils." Isaiah ii, 22.

"The first object in the treatment of phthisis is recovery; the second object is the arrest of the disease, although complete recovery may not follow; and when these two objects are unattainable, it remains to promote retardation of progress and tolerance." (Austin Flint, 1866.)

"The literature of the last quarter of a century, so far as it relates to pulmonary phthisis, offers a striking example of the mutability of medical opinions and an instructive lesson for truth-seekers in the field of medicine.

"The treatment for the arrest of pulmonary phthisis has reference to two objects: first, the destruction of the parasite, and second, the removal of the conditions on which it depends for its existence." (Austin Flint, January, 14, 1884.)

"I believe that the doctrine of a *contagium vivum* is established on a solid foundation, and that the principle it involves, if firmly grasped in capable hands, will prove a powerful instrument of future discoveries. And let no man doubt that such discoveries will lead to incalculable benefits to the human race. Our business in life is to do battle with disease, and we may rest assured that the more we know of our enemy, the more successfully we shall be able to combat him." (Wm. Roberts.)

"Most phthisical patients die of septicemia; and the arrest of their daily re-poisoning is a primary object of treatment." (Dr. Clifford Allbutt.)

PULMONARY TUBERCULOSIS.

The history, symptomatology, morbid anatomy, and diagnosis of pulmonary consumption have been described so thoroughly, even to the minutest details, that it is hardly possible to add a new material to the many masterly works extant.

But the etiology of pulmonary phthisis has undergone great changes within the past twenty years. Until very recently, hereditary predisposition, rapid growth, manner of living, climate, conformation of the thorax, chronic pharyngitis, bronchitis, scrofula, and other diseases were given as causes. The communicability of the disease was accounted for by the fatigue, the watching, the confinement in the unwholesome air of the sick-room, the chilling of the night, and above all, by the sad preoccupation of which Lænnec noted the power in fostering the inbred tendency to phthisis.

That Graves should see in tubercle the product of a nutrition pathologically perverted by scrofula, or that Hughes Bennett should assign trouble of gastric digestion as a cause of tuberculous formations, is in perfect accord with former views. In the light of to-day we believe that they mistook the effect for the cause.

Jaccoud says that there is not one of the many acts of the function of nutrition which can not through persisting perturbations create that state of nutritrive insufficiency which is characteristic of the tuberculous diathesis; digestion, absorption, assimilation, hematosis, hematopoiesis, all these convergent elements of a single result, which is nutrition, may intervene with the same power in the production of the generatrix of the tubercle, and make good the following proposition: The tuberculous diathesis is essentially the result of an insufficiency of nutrition.

But at the present day, and in the present state of science, the diathesis of tuberculosis may be openly questioned if not altogether abandoned.

Many writers make tuberculosis dependent on scrofula. Whatever may be the pathological manifestation which we find in the scrofulous, it always presents one specially distinctive characteristic, indolence, torpidity, lack of reaction of the organism. There is in fact the clinical character of scrofula, and it is sufficient to affirm that we are in the presence of a diathesis. From the moment of his birth to the time of his death, a scrofulous individual shows his scrofulous nature throughout the series of his morbid manifestations, however diverse these may seem; the seat, the depth, the gravity of the anatomical lesions vary *ad infinitum*, but the product of those lesions retains the original imprint, which with attention we may almost always recognize.

Tuberculosis behaves in quite a different way. Here we are conscious of a definite malady, which has for its anatomical characteristic the tuberculous granulation—a characteristic generally accepted.

The clinical symptoms by which the morbid state is shown are without doubt singularly variable, according to the organs affected and the way the organism reacts. The tuberculosis of mucous membranes does not exactly resemble that of serous membranes, nor does the latter resemble visceral phthisis; but these distinctions are more apparent than real. Whatever may be the diversity, the pathological ground remains the same, and the evolution of the tuberculous granulation proceeds according to a type remarkably constant, leading to caseous degeneration and ulcerous softening. We have not the many morbid products which characterize a true diathesis, such as the scrofulous. Here the pathological product is single; it is always and exclusively the granulation which impregnates more or less tissues and viscera, and which determines by its presence a particular specific inflammation, a true infection.

The conception of tubercle is thus very different from that of a real diathesis. Tuberculosis seems to belong to the group of parasitic and infectious diseases, such as glanders or syphilis. Anatomically, the tuberculous product, like the syphilitic gumma and the nodules of glanders, may show itself under the infiltrated form, or focalize itself in such and such a tissue. Like them, it seems susceptible of generalizing itself by way of the lymphatics and the blood, and gradually infecting the viscera.

From the etiological point of view especially, tuberculosis behaves exactly like a parasitic disease. Its rarity among those who live in the open air, despite the worst conditions of alimentation and hygiene; its frequency in all large towns, workshops, or wherever there are numbers of individuals respiring a confined air, would indicate that the disease is not innate, but that it develops very easily under the influence of occasional causes arising from the surroundings. In the hospitals can be seen in the most positive manner, and in more than half of its cases, that tuberculosis has little if any thing hereditary in its origin. Unlike scrofula, which almost always comes from an original vice, phthisis, at a given moment of their existence, attacks individuals who were free from all the pathological manifestations, and endowed with constitutions initially excellent, but who are placed in such locations or under such conditions that the aeration is imperfect.

Pulmonary phthisis generally shows itself between the ages of eighteen and thirty-five. In this period of youth, excesses are oftenest committed, and the health exposed to violent assaults from intemperance, carelessness with respect to weather and seasons, and the absence of all precautionary measures against the varied and baneful morbigenous influences. It would be difficult to number the syphilides, dyspepsias, and gastric catarrhs, Bright's diseases, bronchitis, broncho-pneumonias, pleurisies, and rheumatism contracted in this youthful period of life, or to state to what extent this age is exposed to traumatisms, or what will be the effect of the struggle, competition and anxiety for the future or for social position. "In this age of tempest and of dissipation, of nights given to pleasures and passions, it is hardly astonishing if consumption should also mark this stormy period of man's life." (Vindervogel.)

Among the etiological arguments which tend to prove that tuberculosis is not a diathesis is the possibility of reproducing it experimentally by the introduction of tuberculous germs in the organism. Cornil and others have made known facts in pathological medicine which confirm most positively the experiments of Villemin. From these facts the conclusion may be drawn that not only is tuberculosis transmissible by subcutaneous inoculation of tuberculous products, but that it will develop without an inoculation-wound being necessary, following the ingestion of tuberculous matter, as of milk from tuberculous cows, etc. It is also developed by the introduction into the air-passages of particles emanating from tuberculous expectoration. Is it not probable, then, that many phthisicals contract their diseases under analogous circumstances? Is not this more probable than "a congenital tendency without the evidence of inheritance" (Flint's Practice, page 205) to account for the death from that disease of the five children, the ages being, respectively, at the time of death, twenty-three, twenty-five, twenty-four, twenty-two, and twenty-three, if the very likely fact can be ascertained that they were dwelling under the same roof. Do we not see cases daily of tuberculous infection which can be explained only by the aid of direct contagion?

In the history of tuberculosis every thing seems to indicate a parasitic affection—spontaneous, perhaps, in the bovine race, and evidently more active in the ruminating than in the human species.

Man is not primarily destined to tuberculosis, and considering under what defective conditions he lives, it is a matter of astonishment the power of resistance he has to tuberculous infection. But when he becomes debilitated and thus loses some of his organic resistance, the influences which until then seemed without action upon the economy become preponderating and weaken, by whatever cause he becomes the prey of tuberculosis, just as vegetables are invaded by parasitic growths whenever their sap flows less vigorously.

"Specific diseases are the result of specific causes, that is, of causes producing invariably the same effect, though with different degrees of intensity. Therefore, seeing such an effect produced, we are able to come to an accurate conclusion as to the cause. The primary cause of such a disease rests in the introduction of certain ferments in the midst of the tissues. These ferments by their presence produce an alteration of the parenchyma in a special manner and cause the formation of certain products which constitute the vital changes which destroy the individual attacked by rapid modification of the anatomical elements.

"In analogous circumstances nature always acts in the same manner. Thus we know that in certain cases the boring of an insect on an oak leaf suffices to cause its sap—meant to produce leaves or to maintain their vitality—to undergo a transformation under the action of the insect, and to cause a change of growth in the leaf and even in the component parts of the oak itself. As a matter of fact it is not the insect itself that produces the gall; he is naught but the cause of this modification in the sap of the tree. This modified sap, instead of organizing itself into normal cells, produces on the leaf a heteromorphous tissue. What happens in this case to the oak leaf may happen to man or animals. Though direct observation may not as yet have succeeded in verifying this formation of certain isomorphous and heteromorphous organizations, analogy permits us to believe in it.

"In the first place, the presence of the gall requires that of the larva that causes its growth and that of the grub that lives in it and remains there until adult age.

"The gall develops itself upon the oak leaf, but it is not the only disease we find there, for there is at least one more, consisting in the drying-up and the division of the whole leaf into two lamellæ, one of which, the upper, seems to consist of a very fine epidermis, whereas the other contains the remainder of the leaf. This splitting is due to the deposition of a well-nigh microscopic larva, appearing in the shape of whitish spots more or less wide, but always occupying a central position in the leaf.

"Upon the oak buds we also see the oak-apples, so well known to entomologists and so frequent during the spring. They are called oak-apples on account of their likeness to the real fruit. They are produced by the deposit and the hatching, no longer upon the leaves but on the young buds, of masses of larvæ, who, becoming grubs, build each its own cell in the apple. This, after its occupants have left it, looks a good deal like a real apple and becomes as hard, for it solidifies greatly in becoming dry, or better, gangrenous.

"I might also instance the various diseases of apple trees, of the honeysuckle, the wild rose, the elm, the poplar, of several kinds of willows, of lilacs (*Syringa vulgaris*), pines, cedars, and several herbaceous plants, such as the thistle, the sage, etc.

"It were fastidious to describe all these diseases, but from their observation certain results are derived which may be formulated as follows:

"Except through lack of air, of light, water, and nutritious substances, which, after all, amounts to the same thing, water, light, and air being the true aliments, no disease affecting the vegetable kingdom has ever been observed having any other cause than an animal or vegetable parasite.

"At times the parasite will actually destroy the plant, but its noxious influence may be borne either by the portion it attacks, or by the whole plant. Such an influence is daily recognized by horticulturists as the result of the action of the *Aphis lassigera*, who produces upon apple trees real cancerous ulcerations, a gangrene of the bark and even of the wood, and finally, unless the proper remedies are applied, causes the death of the tree.

"Other members of the innumerable family of pucerons (hemiptera) seem, instead, to act only in virtue of their bulk, either by intercepting the air-supply, or by absorbing too large a proportion of the sap intended for the young buds.

"At times, and this is surely one of the most interesting facts in organology, the mere presence of parasites determines, upon the places they attack, the production of accidental growth of all possible shapes and structures. These are simple developments of normal tissue, apparent hypertrophies, either general or localized, of the bark or of the wood itself. These products show a structure distinct from that of the diseased tissue itself, and may be either embodied with it or be inclosed in well-isolated cysts. Further still, within these cysts they may still maintain the same structure as that of the affected tree, or assume a completely heterologous formation. The gall-nut, the oak-apple, those strange vegetations we observe on the leaves of plants of the sweet-briar type, the encysted tumors we find in the bark of several conifera, are all remarkable instances of these last organizations, essentially heterologous products. The encysted tumors of the conifera, a kind of follicular cysts easily enucleated, are to be found in a relatively very soft tissue, they themselves being of a horny consistency, and of a structure absolutely differing from the cortical tissue inclosing them and from the ligneous tissue itself.

"It is surely a remarkable fact, that from the mere presence of a larva, or of the insect itself, a distinct organized product should be developed upon another being, and that this product should continue to live and grow as long as the parasite remains, and that this neoplasm should die or metamorphose itself when the parasite dies or leaves its habitat, that is to say, that the normal forces of the invaded being should resume their power." (Extract of Letter from de Castelnau.)

Instances of heredity—too evident to be doubted—have been urged as objections to the parasitic conception of tuberculosis. But the heredity of phthisis is not incompatible with that view. If the individual tuberculosis develops accidentally upon an impoverished soil, it will readily find a suitable soil in a weakened race, degenerating from father to son. The hereditary phthisicals have not in them from their birth the germ of the tuberculosis which later on is to take them away, but only a born debility, the inheritance from predecessors themselves debilitated, which renders them less able to resist the assault of the disease.

By admitting that tubercle is a parasitic morbid state in its essence, all clinical facts find a rational explanation.

Of late years pathologists have repeatedly insisted that tuberculosis is a chronic infectious disease, and the hypothesis that it is due to a specific organism has received considerable support from the discovery of parasitic elements in the *materies morbi.*

The doctrine of parasitism has been placed on a firm basis by data actually acquired. That diseases which transmit or reproduce themselves always and infinitely under the same form, with the same symptoms, might nevertheless be determined by different causes, would be a difficult matter to comprehend. The virus which gives birth to one of these diseases, and which invades all the economy, must have the faculty of reproduction, and living things are alone possessed of that faculty. The latest investigations tend to show that phthisis pulmonalis may be regarded as a disease of septic, parasitic origin, readily infectious under certain conditions. This has been affirmed lately by Toussaint, and confirmed by the experiments of Hippolite Martin, who is of the opinion that the active tuberculous agent is a parasite.

Cohnheim, one of the most advanced and original workers in Germany, declares himself in favor of the view that all tubercular processes are infective in origin. Dr. Schneppël thinks that bacteria underlie them, hence the appropriateness of all antiseptic remedies.

Klebs, of Munich, believes that tuberculosis is an infectious disease of parasitic origin, induced by certain micro-organisms which invade the body and multiply in it, and that the expectation might be entertained of curing it by the employment of means which are calculated to annihilate these organisms.

The most important views of the learned anatomo-pathologist, Rindfleisch (*Archfürpath*, T. lxxxv, p. 71), can be summed up as follows: First, it seems evident that tuberculosis is eminently an infectious disease, that it transmits itself directly from man to animals by inoculation; and if there are but few facts in favor of transmissibility from man to man, it is probable that the human species has to a certain point become acclimated to the disease. Thus in its origin tuberculosis must have been a disease analogous to what syphilis is to-day. It possessed and yet possesses the faculty of transmitting itself by heredity. In time the poison has passed to the state of patrimony common to all successive generations, which by virtue of that patrimony itself have acquired a certain immunity from outside infection. *Per contra*, as soon as the essential condition of health deteriorates, tuberculosis shows itself anew. It is infectious and inveterate, like leprosis, which formerly was a contagious disease, but which to-day seldom transmits itself except by heredity.

Dr. Clifford Allbutt regards common phthisis as cases of pure ulcer, the ulcers being constantly the seat of foul secretions of some kind or other, and producing chronic pyemia.

That a resemblance exists between the tubercular process and septic poisoning seems to be beyond a doubt. It is seen in the clinical study of the thermometry of the two classes of diseases. Many authors have recently directed attention to this fact, notably Professor Charcot, of Paris. In a recent contribution to the literature of the subject, he remarks: "The thermic curves are not those of inflammatory action, but of putrid infection," and he proceeds to show that "in the pyrexial form of phthisis" the evening exacerbation (of temperature) is due, not to a pneumonic process, but to the resorption of the softened material.

"The power of communicating contagion is an indisputable property of all tubercular affections. Contagiousness forms an absolutely and, moreover, the only reliable criterion of suspected tuberculosis.

"The carriers of infection are presumably specific parasitic organisms. Tubercular virus commonly enters the system by inhalation through the respiratory passages. Thus the primary lesion is frequently found in the lungs, whence the disease may be carried in the pleura and the bronchial glands, or, through the agency of the sputa, to the alimentary canal. This produces the common form of pneumo-intestinal phthisis. The intestinal tract is also liable to direct infection through the upper portion of the nasal cavity. Excretion of the virus through the kidneys may cause uro-genital tuberculosis. The primary affections of bone and joints are explained by previous infections of the blood and local traumatism, causing increased deposition of vitiated material. Acute general tuberculosis arises from overabundance of the virus. The lesions of the thoracic duct and pulmonary veins render this a very plausible explanation of the rapidity and evidences of dissemination in such cases. Local tuberculosis is not essentially a distinct process. The interrelation is analogous to that subsisting between chancre and constitutional syphilis. The so-called phthisical *habitus* is a result of already existing disease, not a predisposition to acquire it. Heredity is its common cause. The virus may communicate itself to the ovum and spermatic fluid, and thus be found in the newly-born. A child in this way affected may pass through long periods of latency of the virus, but its presence in the body is shown by the development of the phthisical *habitus*. Syphilis and tuberculosis are thus strikingly analogous diseases, as indicated by the direct personal communicability of their contagion." (Friedlander. *Facultat Program*, Leipzig.)

That the cause of tuberculosis was a specific germ, had for a long time been suspected, but proofs of its existence had not been given until Koch, at a meeting of the Physiological Society of Berlin (March 22, 1882), demonstrated the existence of the bacillus.

His discovery has since been admitted by numbers of the ablest clinicians and leading pathologists.

As an evidence of the statement above given we quote Cochet (*Union Medicale* No. 166):

1. The presence of Koch's bacillus in the expectoration is an absolute proof of the existence of pulmonary tuberculosis.

2. The absence of the bacilli from the expectoration in repeated examinations is opposed to the diagnosis of tuberculosis.

In a communication to the Academy of Medicine of Paris, Daremberg states that "tuberculosis is a parasitic disease, transmissible by inoculation, alimentation, or inhalation. It is always caused by the absorption of a germ from without."

In his lessons given at the Necker Hospital, March, 1886, Trelat taught that "tuberculosis is a neoplastic, inflammatory disease, susceptible of spontaneous cure, and furthermore, from a clinical point of view, it is parasitic, microbic, infectious, and contagious."

We see to-day, then, a general belief founded on clinical observations and experimental pathology in the septic, parasitic origin of tuberculosis.

Proven are these two propositions:

1. Phthisis is a specific disease from a specific cause.

2. Phthisis may be produced by absorption of tuberculous matter in contact with the mucous membrane of the air-passages or intestinal tract.

There is also evidence that the energy of this tuberculous matter is due to germ development and progression. Hence the value of antiseptic influence in the treatment of phthisis, not only in the latter stage of pus-production and absorption, but also in the earlier process of infection. (Dr. Wm. Porter, N. C. Journal, 1885, vol. 15, page 125.)

[TO BE CONTINUED.]

A CASE OF ATROPINE POISONING.*

BY ROBERT DUNLAP, M. D.

I was recently in attendance on a lady who died subsequently to taking a dose of sulphate of atropia administered by a druggist as an antidote to opium poisoning. My report of the case is as follows:

Mrs. B. was delivered by me of a healthy child at full term on Thursday, February 24th. The presentation and delivery were normal, and no untoward symptoms were developed. She was of exceedingly nervous temperament, anemic, and inclined to hysteria. On several occasions she expressed a desire for an opiate, which I refused to prescribe, and urged her to avoid using. She desired this simply as a nervous sedative and not by any means to overcome the after-pains, as she said she was troubled less by these than at any one of her previous seven deliveries. I prescribed the bromides, and later bromidia, but this last was not used.

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*Read before the Louisville Medical Society, March 10, 1887.

I saw her about 11 A. M. March 2d, and there were no indications of any impending trouble; at 1 P. M. I was called by telephone by the neighboring druggist to visit Mrs. B., as she was under the influence of morphine, and her family were alarmed. I stated to him that I had prescribed no morphine; but, thinking that perhaps she imagined that the calomel and soda powders I had ordered in the morning contained morphine, and that her trouble was hysterical, I told him to let her alone, and I would call late in the evening. Later I was called by her daughter, and I repeated to her what I had previously told the druggist.

I saw her at 7 P. M., and was then told that she had obtained morphine by three different small children, and was supposed to have taken about thirty cents' worth of the drug.

On examination I found her pupils dilated to the utmost, respiration 40, deep, but not stertorous, pulse above 150 and very feeble, temperature 104°+; mouth, throat, and tongue so dry that she was unable to articulate; eyes staring and glassy, and lips blue. She was sensible to pain, as on pinching her wrists she would retract them. She was very restless, would turn herself from side to side, and even raise herself to a sitting posture. When questioned she would attempt an answer, and appeared to be conscious. Recognizing these symptoms as belonging to belladonna poisoning alone, I asked what had been given her, and was informed that the druggest had sent an antidote in powder. I immediately wrote to him asking what he had sent, and if atropia, how much? His answer was, one sixteenth of a grain of sulphate of atropia.

I used aromatic spirits of ammonia by inhalation and combined with whisky, both internally and by hypodermic injection; later pilocarpin hypodermically, keeping up whisky and ammonia as indicated, with cold applications to the head. I then visited the druggist and inquired why he had given so large a dose of atropia? His answer was, "She had taken a heap of morphine." I remonstrated with him for giving so much, and tried to show him that his idea of the dose was incorrect. He insisted thnt he knew what he was doing, showed me another powder that he had prepared to send if it was deemed necessary, and said he would not hesitate to do the same on a similar occasion. He also stated that Dr. Cochran had seen the lady in the afternoon, and had been very severe in denouncing his course. He then stated that he had only sold one fourth grain morphine to a child for Mrs. B. when I told him he ought to have let her alone as I advised him at 1 o'clock to do, and that there was no necessity under the circumstances of giving any thing, certainly not one sixteenth grain of atropia.

The whisky and ammonia were kept up during the night, but about 5 A. M. March 3d, I was summoned, as she was having alarming attacks of syncope. These disappeared upon the use of increased doses of whisky and ammonia, and during the day her condition was very favorable; urine was passed without the use of a catheter, and she was able to take a little nourishment. Toward evening, however, her prostration became so great that I summoned Dr. McDermott in consultation. The debility of the heart was so great that we were unable to overcome it, and she died on Friday morning about 5:30 o'clock, forty-one hours after taking the atropia.

I did not employ an emetic, as I saw her several hours after the drug had been taken and after two other physicians had seen her, but principally for fear of inducing dangerous hemorrhage, as her labor had occurred only six days previous. Hemorrhage did occur to some extent, excited by her convulsive movements, but not sufficient to produce, though enough to add to her debility.

No one capable of forming a diagnosis saw her under the influence of morphine. No one positively knows how much morphine she obtained, and no one, except perhaps the druggist, knows how much atropia was given. He told Dr. Cochran that he had sent one eighth grain of atropia, and a few hours afterward told me it was one sixteenth grain. His inconsistency is apparent, and I think needs no comment.

In an interview in one of the daily papers in regard to this case, I was made unintentionally to say that I had commenced the treatment with an injection of digitalis, and a leading druggist saw fit to severely criticise the use of this drug. I did not so use it; but, in consultation with Dr. McDermott the second day, we saw indications for its use, and employed one sixtieth grain of digitalin and small amounts of morphia hypodermically with apparent good effect.

LOUISVILLE.

Societies.

LOUISVILLE CLINICAL SOCIETY.

March 29, 1887, Thos. P. Satterwhite, President pro tem., in the chair.

Dr. Bloom introduced a patient, Mr. H., of Paducah, who presented that rare form of psoriasis known as psoriasis palmaris vulgaris. The family history of the patient is very good; his mother and an uncle suffered from psoriasis. Patient himself is a man thirty-four years old, and first noticed psoriatic plaques on his elbows fifteen years ago. The speaker saw him for the first time three years ago and treated him for two typical plaques on the elbows. He had then one or two psoriatic spots on each external ear. His present condition of two weeks' standing is as you see: on the palmar surface of both hands are numerous psoriatic patches more or less scaly and irregularly defined. The patient has washed his hands frequently, having himself observed the beneficial influence of soap and water in getting rid of the scales. The eruption on the palmar surface of the hands is not at all deep-seated; on the backs of the hands behind the interdigital spaces are plaques which are more typical of the disease, but these two have but few adherent scales.

On the arms and elbows are plaques covered with thin, pearly white scales. On the chest are numerous small plaques mostly covered with scales, and some most recent in appearance not yet so covered. They are irregular in their distribution. A true psoriasis guttata dispersa, some half a dozen on the back of the same size, with one large plaque on the left nates, about the size of a trade dollar, and a few of the smaller ones on the lower extremities, suffice for a short description. The soles of the feet are entirely free. The chief point of interest in the case is the occurrence of a non-syphilitic palmar psoriasis. It is said that Hebra at one time doubted its existence, but while on Kaposi's staff the speaker had seen half a dozen such cases. In Kaposi's atlas of syphilis there is a plate of a non-syphilitic psoriasis. Newman, in his new atlas (for year 1886), has two such. At the meeting of the New York Dermatological Society (Journal Cutaneous and Venereal diseases, October, 1885), a similar case was presented as a great rarity, and in the next number of the same journal another case is reported as having been presented because "most of the members had said they had never seen one." The patient before you has never had syphilis, but aside from this fact the diagnosis would not be difficult from the concurrent psoriasis of other regions and even from a close examination of the appearance on his palms.

Dr. Ouchterlony read an extract from a paper of his own, already published, on "Diagnosis of Syphilitic Diseases of the Skin," in which psoriasis vulgaris of the palms was mentioned as very rare, the probability of palmar exanthemata being syphilitic being duly set forth. He concurred in Dr. Bloom's diagnosis, and stated that the paper above mentioned had made reference to such cases.

Dr. Mathews stated that on one occasion, on examining a young man for life insurance, he accidentally discovered a palmar outbreak which, in spite of the applicant's denial, he considered due to syphilis. The policy was, on his recommendation, refused. The applicant afterward confessed to having had syphilis. Dr. Mathews furthermore reported two cases which were of special interest, not so much in themselves as in illustrating, first, the necessity of close attention to the proper performance of the daily duties of life on the part of the patient, and secondly, a close inquiry on the part of the family physician. He was called to attend a young girl of fourteen or fifteen years of age on account of "some rectal trouble." Dr. M. questioned the child and found that she was not only of a constipated habit, but that the bowels seldom moved more than once in four days and sometimes only once a week. At this time the bowels had not moved (she told him) in two weeks. An examination disclosed a fecal impaction which led him to believe she had not had an action in two months. The girl would rush off to school in the morning, being so eager to get a medal that she took no time to stool. He removed, by operation with chloroform, a fecal impaction larger than two fists.

A second case has been operated upon to-day; the patient, a man eighty-seven years old. He had been under treatment for one month for general letting-down, with tonics, etc. During this time he had complained of what he called piles. He had up to a month previous been able to attend to business in spite of his great age. He had had for a week or more a bearing-down sensation and tendency to go to stool. Being asked, "When did you last have a good stool?" he answered "more than a month ago." Examination showed large fecal impaction, and this was the probable cause of the decline. That afternoon chloroform was administered without difficulty, and an impaction larger than a fetal head was removed; the largest in the speaker's experience. He believes that the man was dying from not having an action, whereas life might now be prolonged. In attendance upon young girls physicans can not be too careful to regulate the bowels, as parents do not do it. The same statement applies to old people.

Dr. Satterwhite reported a case of a young lady upon whom he attended, who from girlhood up had had a stool but once a month.

Dr. Roberts said that a lady patient told him she had an action only when she menstruated. Another patient of his was paralyzed, and having no stool, and because of the paralysis no sense of wanting to stool, made an ischio-rectal abscess in attempting to remove his feces. This healed, but the other day he again had fecal impaction; lumps could be felt all over the bowels. Dr. Roberts removed some of the matter, and after a time the patient voided in two stools a large mass of feces.

Dr. Bloom said that a case was on record, and quoted by Dr. Bowditch in his lectures at Harvard, of a man habitually constipated who went eight months and sixteen days without a stool, at the end of which time he defecated more than fifty pounds of feces. During all this time the man was to all appearances perfectly well.

Dr. Mathews had had a case of constipation of three months, followed by the passage of more than two chambers full of feces. What is constipation in one may not be in another.

Dr. Ouchterlony showed the result of the *post-mortem* examination of a patient whose case he had reported at the last meeting. Dr. Ouchterlony was then inclined to the belief of cancerous kidney, but did not exclude possible malignant disease of the spleen. Primary cancer of spleen, he stated, he had never seen, either clinically or in the dead-house. The *post-mortem* showed a fatty heart; the right kidney being enlarged but not so movable as he had supposed. The spleen was enormously enlarged, had pushed the left kidney downward and inward, and had pressed on the left ureter, which was dilated. The liver weighed one hundred and sixteen ounces, the left kidney five and a half, the right seven and a half, and the spleen one hundred and thirty-nine. A histological examination of the spleen, from preparations by Mr. Simon Flexner, showed the absence of normal spleen tissue, and its place occupied by new or embryonic cells. The tumor is probably round-celled sarcoma. From the gall-bladder white gall-stones of cholesterin in great number were taken, which varied in size.

Dr. Ouchterlony read a paper on scleroderma with a report of two cases.

I. N. BLOOM, M. D.,
Secretary.

LOUISVILLE MEDICAL SOCIETY.

March 1st, Dr. J. L. Clemens, President pro tem., in the chair.

Dr. Robt. Dunlap read a written report of a case of atropine poisoning. (See page 230.)

DISCUSSION. Dr. Bailey: I wish first to say that I positively disapprove of the course pursued by the druggist in prescribing for the case without having any opportunity of making a diagnosis, and exhibiting a supposed antidote of so poisonous a nature. However, I do not think the patient died from atropine poisoning. The patient, according to the best information, got six ordinary doses. Six ordinary doses of atropine ought not to kill. Six times the ordinary dose of morphine or of strychnine do not kill. Is there any reason for making atropia an exception to the rule? In this view he felt confirmed by the report of the high temperature reached. A temperature of 104° does not belong to poisoning by atropine. In moderate doses it produces elevation of temperature, but in poisonous doses we find the temperature lowered. Parturient women are liable to die several days after delivery from septic trouble. In these cases we might have such fever, or they may die from exhaustion. We must look for something other than atropine as a cause of death in this case. While we have here marked symptoms of atropine poisoning, he did not think a charge of poisoning could be sustained in court, and was therefore inclined to attribute the death to natural causes.

Dr. Smith said that the opinion of death from atropine poisoning would not be fully justified under the circumstances, this conclusion being based altogether upon the fact of the high temperature. He had seen an elevation of temperature of two and a half degrees twelve hours after the exhibition of $\frac{1}{16}$ grain of atropine given in opium poisoning, but no such temperature as 104° had ever been recorded as a result of the action of atropia. While this case might be an exception, the presumption is against it, and he believed, with Dr. Bailey, that a charge of death by poisoning could not be sustained in the case.

Dr. S. did not believe that one sixteenth of a grain of atropia, or even one eighth, in a grown person would produce death. The smallest fatal dose on record was more than half a grain. There is a notion abroad which often results in harm, and is likely to result in more, that atropine is an antidote to morphine, which is certainly not true in any proper sense. At certain stages in the operation of the two drugs there is a degree of antagonism, but antidotal action they have not. The first effect of nearly all drugs acting on the nerves is to stimulate. This at the beginning atropine and morphine both do. Morphine ceases to stimulate and manifests its narcotic action sooner than atropia. There is no evidence to show that when the heart has begun to yield under morphine it will react under atropine. The respiration can doubtless be somewhat accelerated by atropia; but a small dose, never more than one fiftieth of a grain, will accomplish all that the drug is capable of doing. Larger doses help the morphine on to a fatal result, and less harm would result if it were not given at all than if given indiscriminately as is often the case.

Dr. Ray was surprised that Dr. Smith should deny the antagonism of morphine and atropine. In connection with Dr. Coomes he had himself made a number of experiments on dogs. To one dog he had given six grains of morphine. After the dog had got well under the influence of the morphine a large dose of atropia was given, when the dog got up and walked. The atropia overcame the morphia, dilated the pupil, and increased the strength of the heart-beat.

Dr. von Donhoff deemed it unfortunate, under the issues involved, that he could not agree that the patient had died of atropine poisoning. His experience had been with heroic doses. In the case of a child whose toe he had amputated by reason of its having been trod on by a horse, and who on the next day developed tetanus, he had given atropine and reduced the temperature from 105° to 102°. During the time the child was under treatment it must have taken four or five grains of the drug. He has seen a temperature of 102° which was not *ante-mortem* temperature, in cases of atropine poisoning. He had charge of a patient, a woman, who took three grains and died in ten hours. He fully agreed with Dr. Smith in the opinion that atropine is not antidotal to morphine in any true sense. He was willing to agree that when morphine has been taken in small doses atropine may antagonize it, but not when taken in large doses. In regard to the experiments referred to by Dr. Ray, it is a fact that dogs will stand twenty grains of morphine with impunity. Into dogs weak from distemper he had injected three, four, and five grains of morphine, from which they awoke in five or six hours without intervening treatment. Horses may take it *ad libitum*—twenty or thirty grains at a time—hypodermically. Chickens will swallow any amount of morphine without showing any effects of the drug.

Dr. Larabee, speaking by invitation, did not know of any thing more productive of harm than the notion that atropine is the antagonist of morphine; it certainly is not in any sense to be called antidotal. If there is antagonism it ought to be shown in the symptoms produced by each. Both drugs produce death in the same manner. A lethal dose of atropine and a lethal dose of morphine will kill in half the time that either alone will accomplish the result. Whenever opium begins to paralyze the heart, atropine hastens its action. In their action on the pupil there is no true antagonism. Atropine paralyzes the muscle from without in a different way from that in which opium contracts it. The only point of diversity between them is a physiological one. The only use for atropine in opium poisoning is when, on account of the slow respiration carbonic-acid poisoning is threatened, we may by using the $\frac{1}{60}$ or $\frac{1}{120}$ of a grain raise the respirations from four to twelve and save our patient, whisky may be given, but we would not say that whisky is an antidote.

Dr. Taylor had given one quarter of a grain of belladonna to a woman who had been in the habit of taking sixteen grains of morphine a day, with the result of producing alarming symptoms of belladonna poisoning. He could account for this result only on the supposition of idiosyncrasy.

Dr. Bailey desired to take limited issue with Dr. Larabee as to the position that atropine is not antidotal to morphine. If when morphine has reduced the respirations to four to the minute, you give atropine and get eight to twelve, it is to that extent an antidote. Poisonous doses of both will no doubt kill quicker than will either one alone.

Dr. Skinner expressed the wish that some author would write a digest of the literature of the subject and relieve it of so much confusion. For his own part he was of the opinion that atropine was both antagonistic and antidotal in its action to morphine. He was surprised to hear Dr. Smith express the views he had just listened to in view of a recent experience he had had with the speaker in the treatment of a case of severe opium poisoning. In this instance the patient, as well as could be learned, had taken about seven grains of morphine. About four hours afterward when the patient was found, he was breathing by a succession of gasps at intervals of four minutes, which afterward became less full but slightly more frequent, say one in every two and a half minutes. The pupil was absolutely insensible, and no amount of peripheral irritation thought justifiable could elicit the least reflex sensibility. A succession of hypodermic injections of atropine were given in a few hours, amounting to $\frac{1}{10}$ of a grain. Shortly afterward the respiration began to improve and the patient recovered.

He had seen no reason for changing his views, but believed in watching the pupil and giving atropine for its effects.

Dr. Ray, relative to the statement of Dr. Larabee, that atropine and morphine do not antagonize each other in the pupil, said that morphine does act locally, and will contract the pupil if locally applied, but it is less active than atropine and will not overcome it, neither will eserine; four applications of eserine must be made in order to overcome one of atropine. For this reason he is in the habit of using homatropin, it being less active.

Dr. Dunlap, in answer to inquiries, said his patient was getting along well up to the time of taking the atropia. He had seen her two hours before. Neither himself nor any of the other physicians who saw her perceived any indications of septic poisoning. Though her temperature was 104° when seen, hot bottles had soon afterward to be used to keep the extremities warm. The discharge of urine was abundant, the face was bathed in perspiration.

Dr. Larabee saw in these symptoms further evidence of the improbability of the patient's dying from atropia poisoning. In such cases the skin is dry and hot and the urine more or less suppressed. He insisted on the previous statement that there is no antagonism in the action of the two drugs in question in any proper sense. Atropia paralyzes the terminal fibers of the inhibitory nerves and can add nothing to the beat of the heart already in a measure exhausted. Pain alone is the antagonist of morphine, and on the infliction of pain in morphine poisoning he places his chief reliance.

Dr. Smith, in answer to Dr. Skinner, would bear him out in the history of the case he had reported, but Dr. Skinner would further remember that in that case the heart-beat remained surprisingly good, and thus enabled the patient to bear a dose of atropine that in another case might be dangerous. Heart failure is the danger in giving atropine. Dr. Larabee had stated the current views as to atropine paralyzing the terminal fibers of the inhibitory nerves of the heart, but the most recent experiments seemed to point in another direction, and to show that atropine first stimulates all nerve tissues, and paralyzes them afterward just as other neurotics do.

He had learned something also in regard to the antagonism between pain and morphine in the case seen with Dr. Skinner. Before this experience he was a believer in flagellation. In that case he had resorted to flagellation and watched the respirations only to find that they were not hastened a single second. He then concluded that in cases really in danger of death from morphine flagellation did no good, that in other cases, though it doubtless increased respiration, it was unnecessary, and was to be relegated to the background with walking the patient and other heresies. The greatest hope is in artificial respiration. S. G. DABNEY. M.D.,
Secretary.

Reviews and Bibliography.

A Treatise on Diseases of the Skin; with special reference to their diagnosis and treatment, including an analysis of 11,000 consecutive cases. By T. McCall Anderson, M. D. With colored plates and numerous illustrations. Pages, 662. Philadelphia: P. Blakiston, Son & Co. 1887.

This is the conjoint work of a number of able associates of Dr. McCall Anderson, produced under his supervision. Throughout it bears the stamp of his authority, and displays the large experience, close observation, and sound judgment of its author.

The classification employed is that of Dr. A. B. Buchanan, proposed in the Edinburgh Medical Journal in 1863, the object of this classification being to render it as useful as possible from a clinical point of view, and hence the most important point was to arrange the various diseases, as far as practicable, in accordance with their nature and cause.

In this clinical classification two principles are involved, namely, the pathological and the etiological.

In a larger measure than is usual among European writers, American authors find recognition in the various chapters, Duhring and Bulkley especially coming in for this distinction. Dr. Hardaway, of St. Louis, is credited with the introduction of electrolysis in the treatment of hirsuties, and the procedure highly commended by the author.

In the treatment of eczema, which embraces so large a portion of skin diseases, Dr. Anderson favors both constitutional and local treatment, the one or the other to predominate according to the conditions of the affection. He is by no means disposed to throw aside arsenic, as some of our American authors seem to be, but, like Wilson, regards it as the artillery in the siege of a fort.

In the treatment of prurigo arsenic long continued is recommended, notwithstanding the view of Hebra that "there is no internal medicine and no special regimen which can influence prurigo in even the slightest degree either for better or for worse."

Local treatment he also regards as of the utmost importance, and commends the plan of Hebra, namely, keeping the patient in bed by weeks, covering the body daily with Wilkinson's ointment or some modification of it.

In regard to the etiology of elephantiasis arabum the author is not at all positive, but does not think we are fully justified in adducing the filaria sanguinis hominis as the sole cause, as hitherto this has not been found in all cases, nor even in the region of country where many cases have occurred; he admits, however, a growing and almost universal conviction in this direction.

Leprosy is regarded by the author as communicated only by contagion; and this certainly with good reason, for it is difficult to see how plainer evidence could be desired than is already furnished of the contagiousness of this most dreadful of diseases. Nothing hopeful in the way of treatment is suggested.

The section on syphilis is more brief than that found in some other works on diseases of the skin, but as full monographs on this subject are in the hands of every one this is not to be regarded as a fault.

Taken altogether, this work of Dr. Anderson is well worthy of a place in the library by the side of any other on the subject.

A Compend of Surgery for Students and Physicians. By Orville Howitz, B. S., M. D., Demonstrator of Anatomy in Jefferson Medical College, etc. With ninety-one illustrations. Pages, 210. Philadelphia: P. Blakiston Son & Co. 1887.

The little work before us, of which two editions have already been sold, has been rewritten and adapted to the antiseptic views which are coming to be held by nearly all surgeons of distinction. The subject-matter is well proportioned in the work, and full as much is embraced as is required in a compend intended to be used for examinations and in quizzing.

The task undertaken by the author has been well performed.

The first number of the Nashville Medical News, a semi-monthly journal, edited by Richard Douglas, M. D., and John W. McAllister, M. D., has been laid on our table. The tone of the "News" is elevated and its matter good. The editors have our best wishes in their laudable enterprise.

The Register, a new weekly medical journal, by Drs. J. V. Shoemaker and Wm. C. Wile, of Philadelphia, has got well under way, and gives evidence of being able to hold its own in the front rank of the array of medical journals.

Eczema in Children.—Lanoline in contact with the human skin is said not to produce any acid decomposition products, and is therefore a suitable base for ointments to be applied to inflamed surfaces. A salve of bismuth and lanoline is recommended by the *All. Wiener Med. Ztg.*, for eczema, especially in children.

Correspondence.

PARIS LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

In a work on the treatment of typhoid fever, by Dr. Albert Robin, for which the Lacaze prize of ten thousand francs was awarded to him by the Faculty of Medicine of Paris, the author criticised the antithermic medication adopted in this affection by most practitioners in the present day. Dr. Robin remarks that the more rational mode consists not in combating the heat, which of itself is only a symptom, but its generators. The antithermic should be replaced by the antipyretic medication, which is fundamental. Far from seeking to slacken the oxidations in fevers, the therapeutics of these affections should tend, on the contrary, to hasten them by all possible means, as the oxidations undergo a remarkable diminution in fevers, and because the hyperthermia and the symptomatic gravity are particularly connected with the presence in the blood of extractive tissues incompletely oxidized, which should be burned in order to hasten their elimination.

To operate against the typhic process we must first moderate organic disintegration or disassimilation, then render soluble the waste tissues, which are ordinarily little soluble. The first indication is fulfilled by the aid of nutritive liquids in certain quantities, beef tea and milk, which powerfully modify waste, by alcohol, by the extract of cinchona (two or three grams per day), and particularly by the sulphate of quinine, administered, not by massive doses to which the antithermic doctrine has accustomed physicians, but by minimum and small, divided doses (fifty centigrams in two doses at long intervals). Alcohol is here the *dynamophore par excellence*, to which is associated the acetate of ammonia when adynamia and stupor augment. The second indication has for means benzoic acid and the benzoate of soda, salicylic acid and the salicylate of soda. These acids are found in the urine under the form of salicyluric acid and of hippuric acid, from ternary they become quaternary in absorbing nitrogen; they are more soluble than the extractive matter which enters into their composition.

Dr. Robin noticed in the urine of typhoid patients the presence of ptomaines, resulting either from a functional anomaly of the tissues or from a perversion of disintegration, or from bacterian fermentation.

The works of Dr. A. Gautier, the well-known chemist, have thrown some light on the terrible effects of this alkaloid. By the side of the ptomaines may be placed the leucomaines recently discovered by the same chemist. Their *rôle* is important in the genesis of infectious maladies. When their elimination becomes insufficient they are retained in the organism. They constitute one of the products of microbian activity. (Auto-infection or spontaneity may be deduced.) According to Professor Bouchard, each microbe manufactures a special alkaloid. The intestine is the great laboratory where the ptomaines are formed, and which, partly reabsorbed, pass into the circulation, and are then eliminated by the urine. Their production is very great in typhoid fever.

Notwithstanding the great uncertainty that still reigns concerning the microbe of typhoid fever, the microbian destruction is an important indication, and intestinal asepsia is indispensable. Professor Bouchard practices asepsia by the aid of iodoform associated with powdered charcoal. According to Dr. Gautier, ptomaines and leucomaines are strongly oxidizable, and their combustion by oxygen is the most powerful agent for their destruction and elimination. In fine, the therapeutic method of Dr. Robin is based, like that of his former teacher, Professor Jaccoud, on the clinical indications of typhoid fever, but, more ultra-chemical than that of his master's method, it is founded almost exclusively on chemistry and pathological physiology.

In connection with this subject, I may here mention that at a recent meeting of the Paris Biological Society Dr. Robin gave further details of his researches on the subject of fevers in general. In typhoid fever more especially, he stated, medicaments should be employed which increase oxidation, such as oxygen, cold baths, cutaneous derivatives, chlorate of potash, iodates, and bromates. Substances like sulphate of quinine and antipyrin, which diminish oxidation, should be avoided. This, it may be observed, is in opposition to the general practice of the day. Chlorate of potash, sodates, and bromates must be given very cautiously, owing to the poisonous effects of large doses. Dr. Robin thinks that they may be replaced by drugs which indirectly favor oxidation, such as alcohol, copious draughts of fluid milk, etc. M. d'Arsonval, a well-known veterinarian, stated that the results obtained by the use of cold baths, as recommended by Robin, agreed with his own investigations on the temperature of animals. In these, however, oxygen did not increase heat.

In a note by Dr. Du Claux, Professor of Medicine at the Faculty of Sciences, the author, who is an ardent disciple of M. Pasteur, states that the ideas of the eminent biologist dominate the pathogenic doctrines of the day, and that for the future physicians should study more closely the subject of the multiplication of attenuated viruses otherwise termed vaccines. Dr. Du Claux does not pretend to explain in what consists the vaccinal power, but states that it is probable that it depends on a molecular alteration in the constitution of the cells of the organism, manifesting itself by a palpable modification of its vital properties. In awaiting a better explanation it becomes incumbent on us to defend ourselves against the invasion and the proliferation of microbes. The strict observance of the rules of hygiene in health and disease, absolute cleanliness of the body in these two conditions, a strict supervision over all erosions of the skin and of the mucous membranes; the filtering of all drinking-water, and particularly by the new antimicrobian filters lately introduced; the employment of antiseptics which diminish virulence; such are the principal means of preservation, but above all we must bear in mind the period of contagiousness of virulent maladies in order to remove and isolate patients and convalescents.

In concluding his note the author expresses himself thus: "Epidemic maladies are the consequence of ignorance, and the punishment of the carelessness of peoples and of individuals."

PARIS, March 9, 1887.

NEW YORK LETTER.

I took my Sunday dinner with Dr. Morrow, where I met Dr. Jarvis, the laryngologist at the University of New York, with whom I was greatly pleased, as indeed I expect you will say I am with nearly every one of the doctors I meet here. I feel that I ought to get crabbed and turn some one over, but I can't.

Dr. Jarvis performs well on the zither, and has a *penchant*, as Otis has, for art, and left early to meet a studio engagement. During the after-chat he explained a new collateral scheme that I think of introducing at home. He had a case from a distance, and, being mortal, lost it. The wife asked him to recommend an undertaker, which he did. Some days afterward he received from his *post-mortem* assistant a check for thirty dollars. At a loss to fathom the inwardness of this apparent generosity, he returned the check with a letter of inquiry, which brought out the instructive statement that it was customary to thus tip the doctor, whose excusable failure to cure, and timely suggestion of a terminal director, had served to fatten that essential but unlovable individual's bank account.

Monday, I lunched at Dr. R. W. Taylor's, which is to say I had a well-served and pleasant repast. After a call at the Hoffman, we took a cab to Fifty-second Street dock, missed the boat, and went over to the island in a skiff. The tide was strongly in, the ride enjoyable.

At the Charity I saw so much that I shall attempt but a sketch. All was sweet and clean and orderly. We went to the kitchen. Yards of light white bread were being cut for the evening meal. The cook had just put on the tea to draw. "How much," said I, "does this *tea-pot* hold?" "Sixty gallons—two barrels!" And it smelt good, too. Then over to the Maternity, of whose records Dr. Garrigues is so justly proud. "What," said I, "is your mortality?" "One half per cent." "How do you do it?" "Antisepsis. Come over to the pony room." This I found to be a small, isolated building. Each woman, as she enters the first stage of labor, is taken here and stripped. She is then placed upon a bed properly prepared, and washed from head to foot in a bichloride bath, one to two thousand, and given a vaginal douche of the same. The accoucheur and nurses bathe their hands and arms similarly. After delivery, vagina and womb are douched twice a day with one to two thousand, the patient, of course, being back in her ward. The binder is used in all cases, and the sublimate, on cotton, disinfects the lochia as it flows. Calomel or epsom on the third day. No oil, but sublimate bichloride every where. They wash the floors with it daily. Saw a case of congenital pemphigus (syphilitic). I pass over the host of commonplace cases. Saw a case of multiple colloid tumors, not malignant. Had to diagnose possibly a "bursitis" and two interesting cases of *lupus non-exedens*, one affecting and destroying the external genitals in a female aged thirty-five; a case of condylomata lata affecting not only the external genitals but lips, in a man five years syphilitic. The local treatment was equal parts of salicylic acid and calomel.

Saw a case of double castration for tuberculosis of testicle; full antisepsis, no pus, a fine demonstration in favor of bichloride.

Taylor believes in protiodide, fumigations, and innunctions in syphilis. He is cautious in the matter of internal urethrotomy.

We leave on the island one thousand and forty-three patients on the census card of to-day, of this wonderful outgrowth of human brains and human hearts.

After dinner I went to the County Medical Association, the "old coders" offshoot of the County Society. Gouley and Flint did most of the talking, and good talkers they are, as you know. Dr. John Shrady, President, read a carefully prepared and thoughtful paper on Etiology and Pathology of Aneurisms. He asked me later of Dr. Chris. Leber, who he said was an old army friend to whom he was much attached.

Dr. A. Palmer Dudley showed ovaries and tubes removed a few hours before (Tait's operation). Gouley and Flint both reported interesting cases of diabetes, intermittent, and devoid even up to death of coma. Dr Isaac H. Taylor, President of Bellevue Faculty, was present. He is wonderfully like Major Dudley Haydon, both in *personnel* and manners. Dr. Leale exhibited a new deodorant, glycozone. After ten o'clock we adjourned to the library and had a good clam chowder with cheese and crackers and beer. The meeting was held in the Carnegie Laboratory, a beautiful annex of Bellevue.

Tuesday, after breakfast, I went to Dr. Sayre's—stayed all the forenoon—S. was bluff and hearty as of old. His right hand is quite swollen for breaking John L. Sullivan's arm; but for his rheumatism I would back him for one round against the great slugger. His beard is somewhat grizzled, but no gray hairs show above his ears. Most of the men I meet are prematurely gray. Dr. Sayre's two sons are fine boys. You may imagine what I wished and hoped for my own pair when I saw these young men at work. I will instance this: Mother and daughter, the latter aged, say fifteen, entered and passed behind the screen. The youngest son spread a rug on the floor; at a signal the girl came forth disrobed above the waist to a silk shirt, and without a word extended herself prone on the rug; a case of lateral curvature. I will not expatiate on the gymnastics and calisthenics that followed. From an artistic stand-point alone they were wonderful and beautiful. How much more was this so when, viewing from the stand-point of science, one saw in this performance and in the subject, as compared with photographs of her original deformity, the straightening of the human form divine by muscular development!

A case of double talipes, varus and equinus, in process of correction by simple adhesive strips was demonstrated and dressed. After a number of other cases, I helped the boys remove a fatty tumor from over the right deltoid, under cocoaine. Here, as every where else, complete sublimate antisepsis. Said "Louie," "I hear that Gouley is converted." The sire shouted applause, and said, "Why should antisepsis be debated? It is already wholly proved."

At one o'clock I enjoyed another of A. R. Robinson's skin clinics, and got a good idea about clinic cards for dispensary patients. By the way, the Sayres have a photographic camera in the office, and photograph every case, filing "a proof" in the record books.

At night I went to Dr. Taylor's, to the Dermatological Society. Among those present were Dr. George Fox, the skin man, and Dr. Sturgis, of genito-urinary fame; also, Morrow, Wendt, Holbrook Curtis, Brewer, Halstead, Elliott, and others well known by their works.

First in order was the introduction of cases. A number were shown—myxedema, neurosal lesion of the finger tips, serpiginous syphilide in the fifth year of infection, etc. The *piece du resistance* of the evening was a paper by Dr. Brewer, of the out-department of Roosevelt Hospital, on the gonococcus and the antiseptic treatment of gonorrhea. Dr. Brewer is a Harvard man, young and full of convictions and enthusiasm. He read a strong paper. He was upheld by the secretary, Dr. Allen, and by Drs. Halstead and Holbrook Curtis. The skeptics were Morrow, Wendt, Sturgis, and Taylor. I may mildly include myself. Retro-injection with hot water—Curtis' method—and the bichloride, "the progressive thermal retro-injection," was the idea. A full report will be in the New York journals.

At supper I felt as if it was the "Medico-Chi." in Louisville. I sat between Morrow and Brewer, with Wendt next. Said the former: "Why don't you eat more?" I replied, "I can get the terrapin and champagne at home, but not the gonococcus." I like Fox. He is full of animal magnetism. Over the post-prandial cigar he, Dr. Sherwin, of Brooklyn, and myself had a shoppy but jolly chat. Sturgis, with a handsome, boyish face and iron-gray hair, has a decided mannerism, but impresses you at once as a man of much more than ordinary merit. If you but turn your back or close your eyes when Morrow talks, you hear the sweet Kentucky tone of Dr. Will Berry, perfect to a demi-semi-quaver. We popped a farewell bottle of Pommery and went home at 2 A. M.

Wednesday I was up at 8:30, got my breakfast, and put out again for Sayre's. He is exceedingly kind and patient with his *clientele*, irrespective of degree. Saw a lot of interesting cases, and went over to the Polyclinic at 1 P. M. to hear Bronson, the skin man. He uses chrysarobin in psoriasis "freelessly and fearlessly," as Yandell tells on Capt. R. Never saw any evil follow beyond temporary staining. He is more cautious with pyrogallic acid lest renal lesions ensue. Chrysarobin, in a ten-per-cent ointment, is with him *the* treatment for psoriasis. He showed a fine case of corymbeform syphilide, miliary syphilis, in a woman. She was improving on one fifth grain bichloride of mercury with two grains common salt, thrown twice a week with a hypodermic syringe deep into the muscles about the knee. Dr. Bronson is held in high esteem by his brother dermatologists, and that justly.

At two I went by appointment with Dr. Elliott to Dr. Bulkley's famous "Skin and Cancer Hospital." Dr. Elliott represents Dr. Bulkley in the out-department. From two until nearly five I saw forty varied and instructive cases, serpiginous syphilide with kidney-shaped areas. Treatment: calomel, ʒj, ungt. diachylon, ℥j, locally, and 7½ grs. iodide internally, *t.i.d.*; a lot of typical cases of psoriasis, many of them of twelve or fifteen years' standing. He does not like chrysarobin. Has too much trouble getting it pure. He called my attention to one case of psoriasis that had invaded the axilla, rare, also the exposed glans penis. He believes psoriasis to be parasitic, and treats with progressive arsenication and parasiticides. Acne he treats with icthyol, locally. Like the German school, of which he was a pupil, his cutaneous faith is largely pinned to local treatment. Quite a number of cases of *lupus non exedens* were shown. Dr. Elliott was particularly able and clear in the demonstration and therapeusis of this fearful malady. In one case, of fourteen years' standing, he interpenetrated the diseased tissue with nitrate of silver, and then ordered to be applied twice a day on muslin:

Acid salicylic......................1 part;
Wood creasote....................2 parts;
Lard .... } each .....4 parts.
Wax .... }

He said, with regard to this application, that it would not only destroy the lupus, but that, under it, healthy healing would progress. Syphilitic palmar psoriasis, serpiginous—treatment: Ungt. hydrarg. ʒss; ungt. diachylon, ℥iss, locally; 7½ grains iodide thrice daily internally. For ringworm he uses, if it be discrete, a ten-per-cent mixture of salicylic acid and collodion. If diffuse, acid salicylic, ʒiss; ungt. diachylon, ℥ij. A rare case of diffuse keratosis epidermata, beginning three weeks after birth in a child now four years old, was shown. Scaly eczemas, lichen planus, serpiginous gummata, herpes tonsurans, indeed a host of wonderful variety. For manual eczema, such as beer-jerkers have, he ordered ungt. picis liq. and ungt. diachylon, equal parts, and no bathing. A furious case of iodide eruption wound up the clinic: two hundred and eighty grains daily, internally, and one hundred by inunction, with a modicum of bichloride thrown in. The patient, eleven years a syphilitic, saved his nose, but is indeed profoundly iodized. It is no easy matter to differentiate between gummata and the fearful sores on this man's face.

Thursday I went with Dr. Brewer to the out-departments of Roosevelt Hospital, Fifty-ninth Street and Ninth Avenue. This is a famous corner. Here are the Roosevelt, the new Maternity, the new and incomplete Vanderbilt Hospital, and the ideal, though unfinished, new medical college building of the College of Physicians and Surgeons. It is a broad, massive pressed-brick building, the gift, as you know, of Vanderbilt. Our old friend Prof. Dalton, now *emeritus*, yet president of the faculty, gives his entire time and thought to the details of its construction.

In the dispensary I saw fully exemplified the modern idea in the treatment of genito-urinary lesions. "What about iodoform?" said I to Dr. Huntington. "We use it only on fresh wounds," said he; "use it until danger of sepsis is passed." With Dr. Brewer and Dr. Kiefer I saw the gonococcus. Every case of urethral discharge is examined with a one eighth or one fifteenth oil immersion for this "bug." I saw fully exemplified retro injection. The apparatus is quite simple. The intelligent patient himself managing all details. One rule is enforced, the patient *must* urinate in the presence of the doctor immediately before the *catheter* is passed to prevent carrying the inoculating pus back of the "cut-off" muscle. In "weeping" chronic urethritis, hot water and tannin, a sixty-ounce solution, are used. In other or infectious cases the favorite, either hot or cold, is bichloride 1 to 30,000, or even weaker. Epididymitis is treated with the actual cautery, rapidly swept over the scrotum

An iodoform salve dressing follows. The immediate result is indeed wonderful. Chancroid is burnt with nitric acrid, washed, and dressed with pure salicylic acid after fifteen minutes' warm bathing twice a day. Before using the nitric acid, if the surface is extensive, cocaine is applied for five minutes. Otis and Keyes are the two exemplars here, and the Otis operation is done. If in the first three inches they cut in the dispensary, and send the man home for two days, then to return for the sound. They credit Keyes rather than Levis with the carbolic-acid treatment of hydrocele, when, as you know, it belongs to neither, but to a University man and a Kentuckian. Keyes' operation for varicocele is practiced, and his deep-seated silver-drop injection for prostatorrhea is used at the Roosevelt. I saw a case of gonorrhea there cured in one month by the Lafayette mixture alone. Many genito-urinary men here are strongly inclined to a wholly internal treatment of this pestiferous malady. I am indeed sorry not to meet Dr. Keyes. It is my one disappointment. He is off with Vanderbilt yatching in the tropics. When we build our new dispensary, I have some good ideas to expound, gained in this pleasant visit at the Roosevelt.

A word about instruments, and I must close, before I weary you too much. Reynders, Twenty-third Street and Fourth Avenue, is by odds the cheapest dealer I have ever found, but I do not like his edge-tools as well as I do Tiemann's. Ford, with Caswell & Hazard, has every thing imaginable. His prices are pretty steep, but what you buy is first-class. For catheters there is but one place to go, so far is it better than others and cheaper too, that is Benas' Son, 1293 Broadway; seven fifty a dozen for the finest silk or Mercier curves in black gum. Jacque's and other Nelaton's are cheaper, but are not much used here. What you buy of Benas' Son are his own make. He picks out choice ones for you, and warrants them.

E. R. PALMER, M. D.

NEW YORK, March 29, 1887.

DR. J. M. HENDERSON has returned from a trip to New York, where he has been visiting the schools and hospitals.

Translations.

VIBURNUM PRUNIFOLIUM IN THE TREATMENT OF ABORTION.—(LWOW.) In 1866 Farris, an English physician, recalled attention to an ancient popular remedy, *Viburnum prunifolium*, which he recommended in the highest terms for the prevention of abortion and premature delivery. Subsequently Wilson, of Liverpool (British Medical Journal, May 16, 1885), employed this remedy with success. Recently Lwow (of Kazan) has tried *V. prunifolium* in fifteen cases. In six cases the treatment was undertaken when there were already present all the symptoms of abortion: severe hemorrhage, shortening of the neck of the uterus with dilatation of the os, and uterine pains. The patients took four times a day the solid extract of *V. prunifolium* in doses of two grains in pill or powder. The remedy was kindly borne. Whenever the uterine pains were very strong, to every dose of viburnum was added a fourth of a grain of morphine. *In not one of the fifteen cases did abortion result.* Very promptly the hemorrhage was arrested, and pregnancy continued in its normal course. Furthermore the patients, belonging to the poorer classes, were not obliged to keep the bed, but were able to attend to domestic affairs during the treatment.—*Rivista Internazionale.*

[We have tried the viburnum prunifolium in two cases of threatened abortion much less urgent than those here described, and gave the medicine in much larger doses, but without any favorable influence whatever.—TRANS.]

THE TREATMENT OF PULMONARY PHTHISIS. *Norsk. Magazin for Läge Vid. Frohdnol.*, 1886; Dr. C. F. Larsen, *Nord. Med. Ark.* (Translated by J. A. Ouchterlony, A. M., M. D.) The writer gives great prominence to the hygienic treatment of lung tuberculosis. Every year these patients flock in greater number to the health resorts. It is, however, only during the summer months that these places can be made available. For the winter season phthisical patients are still sent to the South, though rather from old habit than any thing else, for one could hardly expect any specific effects from a sojourn at any of these Southern health resorts.

It is simply the rich supply of fresh air, the evenness of the climate, and a suitable temperature from which the benefit can be derived. But few are in such circumstances as will admit the luxury of a Southern residence for the winter. Furthermore, the presumption upon which this practice is based has been found to be erroneous. Experience in Norway has established the fact that cold is no valid reason for keeping the phthisical from being out in the open air in winter. Nor must the winter residence of such patients be selected with exclusive reference to that cold. The slopes of inland valleys have, in the writer's experience, proved very well adapted to these cases.

Prevention of Pendulous Abdomen.—Dr. E. Baelz, of Tokio, states he never saw among the women of Japan an instance of pendulous abdomen. Without regard to the fact that they never wear a corset, and that they have generally a narrow pelvis, the writer believes that the main factor in the production of this result is the use of a belt during pregnancy, made of soft material, and fitting the abdomen closely, which is worn by every Japanese woman after the fourth or fifth month of pregnancy. Besides this, the bandaging of the abdomen after delivery is regarded as contributing largely to the effect. While using this the abdomen must be well padded with wadding, in order that the binding may fit well over all the parts. Under this treatment, that continues for fourteen days, the writer has never seen a case of pendulous abdomen occur.—*Schmidt's Jahrbücher*.

Experimental Peritonitis.—Dr. B. Pernier, of Naples, as the result of a series of experiments in the production of experimental peritonitis, with reference to the possibility of its connection with a pathogenic parasite, comes to the following conclusions:

1. The injection of small doses of nitric, hydrochloric, acetic, or carbolic acid, or corrosive sublimate into the abdominal cavity are alone capable of producing peritonitis together with perforation and eschar.

2. This experimental peritonitis has always the fibrino-serous form, sometimes purely serous, but never purulent.

3. In the peritoneal exudate we have constantly found a micrococcus for the most part in chains of two (diplococcus), easily cultivable, and, in the form of a cone, liquefying gelatine.

4. This possibly passes with the exudate from the blood, for we have found it abundantly in the blood of healthy animals and in the atmosphere of the locality where these were kept.

5. The pure culture of this is not capable of producing peritonitis in the guinea-pig and in rabbits, neither when injected into the peritoneal cavity itself, into the veins, or the subcutaneous cellular tissue.—*Rivista Internazionale*.

The Treatment of Burns.—(By Prof. von Mosetig-Moorhof, of Vienna.) The danger in burns is above all, as is well known, to be sought (1) in the destruction of a large amount of integument, (2) in the destruction of a large number of red blood corpuscles, (3) in the extensive traumatic injury to the nervous system, (4) during the later stages, in sepsis and long-continued suppuration, etc. A rational therapeusis has the task naturally set for it to oppose these dangers in the strongest possible manner. Certainly the most threatening influence tending to the endangering of life is the acute production of oligo cythemia.

As the experimental labors of Klebs have shown, the most active and inimical agent here is a slow and long-continued burning, even when no particularly high grade of heat is reached, because in these cases the circulating blood remains a long time exposed, and a large quantity of blood is destroyed. On the other hand, in rapid burns a quick effusion of all albuminous matter takes place, and a prompt restoration of the circulation occurs. A rational treatment of dangerous oligo-cythemia can naturally lie only in transfusion.

Probably the dangers which threaten the patient are all embraced in the injuries to the nervous system, though Dupuytren has recognized the pain of the burn as the direct cause of death.

The writer divides the treatment for burns into three groups: (1) Measures which have for their object the occlusion of the burned parts, in order to shut out the irritating and painful action of atmospheric air. For this purpose he would use gutta-percha paper, goldbeater's skin, or the permanent oil or water bath. (2) Measures designed to accomplish the same object by incasing the part in fatty and other substances (salves, white of egg, linseed oil *cum aqua calcis*). (3) Measures for rendering analgesic by direct applications the burned spot.

Moorhof urgently declaims against the irrational but still common practice of using linseed oil with lime-water in every case of severe burn. The degree to which these substances modify pain is by no means great, while gate and door are hereby opened to sepsis with its dangerous consequences. It is incomprehensible how in our time, when every other wound is antiseptically treated, the no less dangerous wounds from burns are inconsiderately treated with infecting oils.

The author commends iodoform as the most valuable material for dressing. According to his own rich experience and that of Mundy, the remedy here exhibits its analgesic action in the fullest measure. After the application of the iodoform dressing he has seen patients severely burned, in a few minutes become more quiet, and in a quarter of an hour experience a fair transport from the vanishing of the pain. The danger of iodoform poisoning in severe burns, where the skin in its entire thickness is destroyed, is very small. In burns of the second degree, where the corium, still capable of absorption, lies exposed, some caution is requisite; but the author has never seen a case of iodoform poisoning under such circumstances.

The procedure is as follows: The burned parts are first cleaned with a cloth dipped into a half-per-cent solution of common salt. The blisters are opened and the epidermic shreds removed. The entire space is then covered with the compress of iodoform gauze, which is applied with a solution of iodoform in ether, for the reason that this contains no excess of undissolved iodoform. Over this is placed a smooth, close-fitting layer of gutta-percha paper, which is fixed with a layer of dressing wool, or other absorbent dressing material, and fastened with a turn of the bandage. The secretion presses out under the gutta-percha into the wadding, drains through this, and is dried up. The bandage is not disturbed for from eight to fourteen days unless this is rendered necessary by high fever. If very much soaked, the outer portions are renewed. The impermeable gutta-percha is very necessary, and should never be left off, for the gauze, made stiff by means of the dried-up secretion, can easily, like a scab, lead to the retention of the secretion. In burns about the face, where such occlusive dressing can not be used, the author employs a salve made of iodoform and vaseline, one to twenty.

The success attained by the author in this way is extraordinary. Of forty-eight cases of severe burns treated in this way, forty recovered; and as severe cases only those are designated where the burn has reached the second and third degrees, and embrace at least an entire region of the body. The story of the eight who died is quickly told, and shows that they were from the first entirely hopeless.—*Schmidt's Jahrbücher.*

TREATMENT OF WHITE SWELLING OF THE ELBOW.—(By Dr. David Matto, of Lima, Peru.) In a case of osteo-arthritis of the elbow the indications for treatment are to be drawn from the local condition and the general state of health of the patient. If the osteo-arthritis presents no point of softening, and there are no fistulas, it is proper to fix the limb in a position of semiflexion and to practice at the joint all the revulsive means known to surgery. Absolute immobility should be maintained for a great length of time, in some cases more than a year. This ought to be made by means of a rigid but movable silicated apparatus, which may be taken off every four or five days, in order to make repeated applications of tincture of iodine to the diseased joint. To the immobilization it is necessary to add pressure with cotton wadding rigorously applied. Prolonged immobilization permits the preservation of the movements of the joints in all their integrity when the articular lesion is only slightly accentuated.

When abscesses exist in the midst of the fungosities they should be punctured, and when the pus is withdrawn it should be replaced by iodoformed ether in a solution of ten per cent. These punctures and injections may be made repeatedly. If fistula exist, in addition to the cotton pads and immobilization, masses of iodoform should be carried as far into the openings as possible.

This treatment should be continued as long as the state of the patient's health remains satisfactory. If at any time constitutional symptoms are manifested, having their origin in the articular disturbance, radical surgical measures must be resorted to at once. In these cases recourse should never be had to resection. This requires a long time to cure, exposes the patient to the dangers of auto-inoculation, to the dangers inherent to a severe operation and a prolonged suppuration. Resort must at once be had to amputation of the arm as far as possible from the tuberculous focus. These local measures should be accompanied by continuous general treatment.—*La Cronica Medica.*

Abstracts and Selections.

ADMINISTRATION OF GASEOUS ENEMATA IN PHTHISIS.—Before the Philadelphia County Medical Society, March 9, 1887, Dr. J. Solis Cohen read a paper on this subject. The object in view, he said, is to supply to the venous circulation an antiseptic, such as sulphureted hydrogen, in sufficient doses to be effective; a result impossible when supplied directly to the arterial current, a plan which would poison the patient. Sulphureted hydrogen inhaled in far less than sufficient doses would suffocate the patient; taken by the stomach, it would produce other serious results. Administered by the bowels, however, and entering the venous current already deteriorated by organic refuse, it is quickly eliminated by the respiratory tract, which thus becomes subjected to its beneficial local antiseptic effects without subjecting the system at large to injury, as when thrown into the arterial current. In other words, the parasite is killed without killing the individual.

Its beneficial effects in phthisis are explained by the action of the gas on the suppurative and septic surfaces, and not by any influence on the bacillus tuberculosis; the consumption proper, the exhaustion, being due to the suppuration and to the consequent septicemia, and not immediately to the bacillus, which, while it produces the destruction of tissue, does not produce the morbid phenomena. The method of administration utilizes the discovery announced by Bernard in 1857, that toxic material introduced into the economy through an organ at a distance from the arterial system could not penetrate into the arterial system because it is eliminated before that system can be reached. Volatile substances are eliminated by the pulmonary alveoli.

The antiseptic substance employed is preferably sulphureted hydrogen. This is propelled by means of a current of carbonic acid. It is important that the carbonic acid be freshly made, and that the injection be made without any admixture of atmospheric air, the presence of which will cause griping.

The carbonic-acid gas as evolved from the action of the dilute sulphuric acid upon sodium carbonate is collected in a rubber bag previously emptied of air by rolling it. This bag is then connected with a hand-ball compressor, by means of which the gas is propelled through natural sulphurous water in a sort of Wolfe bottle, driving off the sulphurous gas with it through a tube, the terminal extremity of which has been passed into the rectum. Within less than a minute the escape of the gas by the lungs can be detected in the breath.

The beneficial results obtained in pulmonary phthisis by Dr. Bergeon, and reported last July to the Académie des Sciences, have been confirmed by Prof. Cornil, in a communication, last October, to the Académie de Médecine, by numbers of French physicians, and by Dr. Hughes Bennett, of Mentone. Bergeon stated that the patients he considered practically cured had no more expectoration, and only dry auscultatory signs of cicatrizing cavities, or other cicatricial results of old lesions. Some of them had become able to resume tolerably laborious employment, with full maintenance of the amelioration they had acquired.

In most patients, it is said, there is marked diminution of cough, expectoration, and night-sweats within two or three days. Nevertheless, the trifling expectorations of those apparently practically cured continued to contain bacilli. This fact may be taken both for an indication that the immediate danger in phthisis is less from the bacilli than from the septicemia which they set up, and as an indication that this protective treatment, when successful, should not be discontinued until the general healthiness of the tissues is sufficiently restored to resist the further development and sustenance of the bacillus tuberculosis.

Dr. William Osler said that recently, at the

University Hospital, a patient very nearly expired after an injection of a mixture of carbon dioxide and sulphureted hydrogen. He was not aware at the time that sulphureted hydrogen, if given in sufficient quantities, is capable of producing poisonous effects even when taken by the rectum. He mentioned this accident, lest similar mistakes may arise. Evidently the amount of sulphureted hydrogen which is given must be small. At the Biological Society, at Paris, some experiments were related, which showed that even a few cubic centimeters are sufficient to poison a good-sized dog. In the experiences which are related in French journals, the odor of sulphureted hydrogen is readily observed in the breath, but he had not noticed this in any of the Blockley patients. This is an exceedingly interesting, not to say comical, method of treating phthisis, but it is too early to say what the results are likely to be.

On the Different Modes of Administering Mercury in Syphilis.—E. Milner, M.R.C.S., surgeon in the Lock Hospital, says, in the Medical Press:

I think every one here to-night will admit that the treatment of syphilis is comprised pretty well in the word *mercury;* but the manifestations and evidences of syphilis are of so varied a character, and above all, are in many of its forms the source of such terrible anxiety to the patient suffering from them, that the observations I have to make, founded upon the experience of twelve years out-patient practice at the Lock Hospital, may, I hope, be of some service to the members of this society in helping them to arrive at some definite conclusion, in some instances, as to which preparation of mercury they should adopt, in order as rapidly as possible to get rid of those visible signs of syphilis, which to many of their patients seem almost as formidable as must have been the curse of leprosy in the days of the laws of Moses.

I shall only venture to bring before the society the consideration of *three* of the most common methods of administering mercury, and these are:

1. Some of the cases in which green iodide mercury should be used.
2. Some of the cases in which inunction should be practiced.
3. Some of the cases in which the vapor of calomel should be applied.

And I shall endeavor to point out the peculiarities of the syphilitic manifestations which, in my experience, would indicate to me which of these three preparations I should use in a particular case.

Of all the syphilitic rashes, the most evident, the most persistent, and perhaps the most difficult to combat, is probably the vesicular syphilide; and it is upon this peculiar form of syphilide I would venture to make my first notes in reference to the use of green iodide of mercury. This form of rash most frequently occurs in light-haired people; it occurs more frequently in women than men, and is nearly always associated with the drinking of large quantities of wine, as distinguished from spirit.

There is another class of patients in which the vesicular is associated with the early tubercular syphilide, and this usually occurs in the dark-haired patients, during cold weather; in the underfed, and underclothed patients of anxious temperament, who have faith that two glasses of stout a day are necessary for the cure and treatment of their disease, and take them in preference to food. In the first of these two classes I have found that the green iodide of mercury with Donovan's solution, in large doses, has proved most advantageous, while in the second class the inunction of the German preparation of blue ointment has excelled all other methods of treatment.

In billiard markers and actors of a certain class, in barmaids and actresses of a certain class, and in commercial travelers, who consider it necessary to have a glass with every customer to conclude a bargain, and in so many others who sit up late and follow very much the practices of these typical classes, or remain long and late at the card-table, the syphilitic rash, of whatever character, is apt to become angry, excessively red, and very evident. To all these, whose living may to an extent depend on their personal appearance, I say emphatically, in spite of the diarrhea, which is so constantly present in such cases, give green iodide of mercury, and give it in large doses; stop their spirits if you can (especially brandy), but give them green iodide of mercury. Donovan's solution with soda and iodide of sodium will assist, for iodide of sodium is much better borne by these patients than the corresponding salt of potassium.

I feel no doubt that the keeping of late hours very materially alters the character of the syphilide, and therefore such a history should influence the selection of the preparation of mercury. People who sit up late have their skins thick, and very frequently covered with an oily perspiration, and it may be this, while impeding the nutrition of their skins, irritates the manifestations of syphilis upon their persons, and is one of the causes of the angry, or so-called gouty, character of the syphilide, of those whom inclination or necessity keep out of their beds.

Barmaids, as distinguished even from barmen, and the whole of the rest of the syphilitic would present the reddest, the most angry syphilitic rashes, and are the most difficult to cure, and indeed sometimes present a rash, which is never found, as far as my experience goes, on any body else. For all these cases I select green iodide of mercury.

Patients who drink constantly, however much you may frighten them, will never take care of themselves, and I have found that though in some of their cases inunction would probably be the best method of treatment, still green iodide is the next best, and will probably, under all the circumstances of the case, prove most efficacious. It is also the most available remedy with patients who sit up late, who have light hair, and above all drink frequently, though perhaps stopping short of actual intoxication; and the typical case for the use of green iodide of mercury would probably be the light-haired degenerated lady, who sits up all night playing the piano at suburban parties, who does not eat much, but refreshes herself frequently, and takes a little brandy before she goes to bed in the early morning.

I next pass to a few points which guide me in ordering the exhibition of mercury by inunction, and would remark that the German ointment, less strong, and containing more suet, and therefore harder than our own, is preferable to the strong ointment of the British Pharmacopeia for this purpose. It salivates severely less frequently and produces more permanent effect. The cases in which, in my experience, the ointment is the best preparation of mercury to use, must be divided into early and later stages of the disease.

Many cases of primary syphilis in healthy, abstemious light-haired men do exceedingly well under the administration of mercury by inunction, and they may even sometimes be so fortunate as to escape any further manifestations of the disease; but I find as a rule, that patients, especially with dark hair, treated in this country, at any rate with inunction, though they may almost avoid syphilides and distressing external manifestations of the disease upon the surface of their bodies, suffer so severely from a form of sloughing sore throat as to do away, in a great many cases, with the advantages which this method of treating primary syphilis undoubtedly possesses; for I think that inunction, even in the early stages of syphilis, gives the best prospect of a subsequent complete cure. Inunction, in the more advanced stages of syphilis, is a refuge for the destitute, and rarely have I found it give other than gratifying results in older cases which have defied most other methods of treatment, save where the patient is careless, drunken, and inattentive to the directions of his medical adviser. Large syphilitic testicles, secondary gummata in patients (who from the duration of their disease ought to be in the tertiary stage one would think), and syphilitic interference with nerve-supply, yielded alike like magic to the treatment of inunction, when the surgeon is at his wit's end, and the patient from anxiety has almost lost his reason. In fact, I believe it is not too much to say that the treatment by inunction in the advanced stages of syphilitic evidences is by far the best remedy we possess, and most rapidly produces a disappearance of chronic syphilitic symptoms, especially in the man who has implicitly followed the directions of his surgeon, and has eaten and drunken moderately, as he was bid.

To sum up, use inunction in the early stages, when you have a healthy, light-haired, abstemious patient with a primary sore, but above all congratulate yourself that with the German blue ointment you can almost certainly cure the distracted married man, whose ambition for the last five or perhaps ten years has been to get rid of a swollen testicle or some other syphilitic lump.

In conclusion, I would draw attention to the advantage of mercury administered locally in the form of fumigation, leaving entirely the question of its administration generally for the cure of constitutional syphilis, and I fear my remarks on this point, to be of value to this learned society, must be confined to two notes only. We are told that the hard local sore should usually disappear under treatment in about six weeks. In very many cases the Hunterian chancre remains much longer, and I have seen distinct hardness remaining at the end of a very much longer period. How to get rid of this induration rapidly is, I am sure, a most material point in the treatment of syphilis, because I believe that the duration of the primary lesion affects the constitutional severity of the case, though I would say, in passing, that I believe in my own mind that the quickly disappearing parchment French sore is most apt to be followed in the early stages of syphilis by serious nervous lesions, and because frequently the hardness of an imperfectly absorbed primary sore is the point at which, in after life, destructive ulceration of the penis not unfrequently begins

To rapidly get rid of a local sore, the local administration of mercury in the form of the vapor of calomel is of material assistance, whether the sore be the smooth, flat-headed, indolent button or accompanied by destructive ulceration of the glans penis.

For ulceration of the extremities, especially the legs, syphilitic in their origin, but frequently associated with a weak state of constitution, or more frequently still, associated with a too rapid or indiscriminate administration of mercury, you have cases that require mercury and in which it is almost impossible for a time to continue the administration of that drug. In these cases the vapor of calomel locally applied is of material assistance, and it is also in the red, angry, prominent, eruption on the forehead along the line of the hat leather, and in the destructive ulceration of the fauces in late secondary syphilis.

ANTIFEBRIN.—Dr. William Osler, Professor of Clinical Medicine in the University of Pennsylvania, first describes antifebrin as a neutral body; and in this respect it differs from all other antipyretics, which are either phenols, like salicylic acid and resorcin, or bases of the chinoline series, as thallin, antipyrin, and quinine. It is a white crystalline powder, insoluble in cold water, but readily dissolving in hot water or alcoholic solutions. The taste is not unpleasant. The dose is from eight to twelve grains. In larger amounts it is not poisonous, though it is advisable not to exceed thirty grains in the day. Usually eight grains will be found an effective dose. It is conveniently given in spirit and water or in whisky, or, for children, in warm sweetened water.

He then deduces from a series of carefully conducted clinical experiments the following:

1. *Reduction of Temperature.* This is the most marked and characteristic action, beginning usually within an hour. In eighteen administrations the fall was over 2° in this time; in three instance a fall of 3°, on two occasions a fall of 4°. In thirteen instances the temperature was reduced 4° in two hours, in sixteen administrations 3°, and on four occasions 5°. The greatest drop within this time was a fall of 64°. The greatest reduction was 8° in five hours. In seven administrations the temperature was unaffected by the eight grains. The duration of the reduction was variable, usually from three to six hours.

In several cases the dose of eight grains did not seem sufficient. In seven administrations little or no effect followed.

In typhoid fever the action was usually prompt and satisfactory. In a young man, aged twenty-five, with persistently high temperature and marked nervous symptoms, the drug was given on fourteen occasions, and after each dose there was a drop of from 3° to 5°.

In the erysipelas cases the action was in each instance most decided.

In phthisis, with high fever, the drug was usually given in a single powder of eight grains, when the temperature was above 103°, but in three cases the plan was tried of giving four grains four or five times a day. This did not seem very successful, and the patients did not feel so comfortable as with the single dose.

In a remarkable case of quartan ague antifebrin in eight-grain doses, given before or during the paroxysm, seemed to be without effect. One curious circumstance, however, is worth mentioning. The lad had always with the fever the most intense general urticaria, which the antifebrin seemed to prevent, much to the patient's comfort.

2. *Action on the Circulatory System.* Usually with the reduction of the fever the pulse would fall, and a drop of 20 or 30 beats in two or three or hours was frequently noted. Thus, in the case above referred to, with a pulse-rate of 112 per minute and the temperature 105°, the pulse fell to 84 in four hours. In another case the pulse fell from 130 to 90 in four hours. A marked increase in the pulse tension was observed in several cases. Even with a rapid fall of from 5° to 7° in two or three hours, there was no evidence of heart weakness. Slight cyanosis, which is mentioned by one or two German writers, did not occur in any instance.

3. *Sweating.* As with thallin and antipyrin, the action of antifebrin is almost invariably accompanied with profuse perspiration, which is often the first effect of the drug. Repeatedly I have seen the forehead beaded with sweat half an hour after the administration of eight grains. This is sometimes a most unpleasant feature in the employment of the drug, and is the only one of which the patients have complained. In several instances the drug was combined with atropine, but without much effect. It does not seem to increase the night-sweats in cases of phthisis; indeed, under its use, one patient, who sweated much with the afternoon dose, had drier and, in consequence, more comfortable nights. In the severe typhoid case already referred to, I stopped its use, as the sweating appeared to weaken the patient.

4. *On the Urine.* The only change noted was a marked increase in the amount in some of the cases. This is probably a direct result of the increased arterial tension.

5. The effect on the general condition seemed usually beneficial. A quiet sleep often followed an hour or so after its administration. The phthisical patients expressed themselves more positively than the others in this matter.

There were none of the disagreeable effects which we sometimes see follow the use of antipyrin and thallin. There was no instance of vomiting; and, with one exception, there was no shivering or chilliness, such as is so common after antipyrin.

These limited observations confirm those of Cahn and Hepp and others, and I think that we have in antifebrin a prompt and powerful antifebrile agent, easy to take, and free from unpleasant effects. It has the advantage also of cheapness. Merck's article, which I have used, is only sixty cents an ounce, wholesale.—*Therapeutic Gazette.*

Pulmonary Phthisis not Contagious.—In summing up the evidence of a very able paper on this subject by Dr. Thos. J. Muys, of Philadelphia, the writer says it appears from the first portion that nearly all the organic diseases of the human body are infectious, but that some, on account of the facility with which their germs multiply and diffuse through the atmosphere, are very readily communicated, while others, which possess these properties in a small degree only, are not readily communicated. The former we have called the contagious, and the latter the non-contagious diseases. Continuing this line of reasoning, we saw that pulmonary tuberculosis clearly belongs to the second or non-contagious class of diseases. In the second or clinical portion we found corroborative evidence of the first portion. Here the danger of exposure, the intimacy between husband and wife, the tubercle-bacilli or the tubercular virus in the atmosphere, the distribution of the disease, the effects of quarantine, were all discussed in the light of contagion, and nothing was discovered to show the slightest danger of communicating this disease from one person to another under ordinary conditions.

In conclusion, we trust that altogether we have offered sufficient proof for believing that pulmonary tuberculosis is entirely due to influences other than those which are swayed by evil genii residing in the air; and hope that we have succeeded in allaying the morbid fear and the abomination with which consumptive people have recently come to be regarded by the medical profession, by their friends, and by all with whom they come in contact.

Aborting Furuncles.—At a recent meeting of the Berlin Medical Society Dr. Bidder spoke of aborting furuncles. He began his treatment in 1875 with one hundred cases, which gave favorable results. His plan consists in the injection with a hypodermic syringe of a two-per-cent solution of carbolic acid obliquely into the furuncle at one side; a second injection is made upon an opposite side; both go to the center of suppuration. A few drops are given each time. In addition a compress, wet in carbolic solution, is placed over the furuncle, and when this can not be used mercurial plaster is substituted. A repetition of the injections is not generally needed, and is not thought desirable. Furuncles so treated do not generally open, but are dissipated. In small furuncles the injection of a few drops suffices; in the larger ones two injections of half the contents of a Pravaz's syringe were enough; in the largest, as large as half a human hand, four injections of half or the whole syringe were given. When a condition of furunculosis was present, as sometimes occurs in diabetes mellitus, constitutional treatment was imperative.

Dr. Lassar stated another method of treating the same affection. Recognizing the fact that the skin over the center of a furuncle is thin, and that through this skin access is obtained to the pus beneath, Lassar has used very small spoons, as large as a needle, which have enabled him carefully, and without giving pain, to remove the contained pus from the center.

Intra-uterine Injections in Septicemia. The value of antiseptic intra-uterine injections in the treatment of puerperal septicemia has been so often proved that few physicians would dare to treat a case of the disease without resorting to them. Such injections constitute the causal treatment of the disease. Their employment, too, is indicated not only when the lochia become offensive, but also, independently of this, in cases of unequivocal septic infection; for such infection while usually associated with that condition, may occur without it, just as in rare instances a badly smelling discharge may be present and the infection absent.

The excellent paper, by Dr. Davis, in the late number of the Medical News, shows some of the dangers which may result from the use of corrosive-sublimate injections, and suggests means by which these may be prevented. It is probable, as Fritsch has pointed out, that the evil done by corrosive-sublimate injections is caused, not by the portion of the solution brought in contact, temporarily, with the uterine mucous membrane, whether that membrane be wounded or entire, but by that which remains in the uterus or vagina, and from which the absorption is gradual and not immediate. To obviate this evil, after an injection is used, the operator ought to compress the uterus, so as to empty it completely, the free escape of the fluid through a patent cervical canal being secured. Further, he might wash out the vagina subsequently with water that has been well boiled, and thus prevent the retention of the corrosive solution. Were these precautions employed, we would more rarely hear of serious symptoms following such injections. The strength of the solution in most cases need not be greater than 1 to 2000.

It is only exceptionally that more than two injections in the twenty-four hours are required. Continuous irrigation has been tried in these cases, but, like drainage, has nothing to commend it, and therefore should not be employed. *Medical News.*

Practical Observations on the Gonococcus and Roux's Method of Confirming its Identity.—Charles W. Allen, M. D., Surgeon to Charity Hospital, etc., writes as follows in Journal of Cutaneous and Genito-Urinary Diseases:

Has the discovery of the gonococcus any practical value? The question of the significance of the gonococcus is indeed a most important one. By establishing the fact of its presence in the pus from the vagina we are enabled to make a positive diagnosis, while without its aid, as a rule, only the more severe and well-marked cases of gonorrhea in the female and those having complications, or those in which the history of infection is perfect, are susceptible of positive diagnosis. The practical importance of the coccus is also seen in gleety and mucous discharges of long standing, as it is now well established that such chronic discharges, even of many years' duration, are capable of reproducing gonorrhea. Again, it is often important to detect a latent gonorrhea either in the male or female, and I have become convinced that the examination of secretions from the male urethra, which to the naked eye are apparently harmless, often show gonococci, and thus would be accounted for a resurrection of the disease after pure intercourse (that is, marital, or where the woman is proven to be free from disease), or after some local irritant.

Noeggerath stated that out of one thousand married men in New York at least eight hundred had had gonorrhea, that ninety per cent of all gonorrheas remained uncured, or at least became latent, but were still infectious in this stage, and consequently almost all women married to men who had suffered from gonorrhea also became infected with the disease.

Schwarz thinks not over ten per cent to fifteen per cent of gonorrhea cases in the large cities of Germany pass into the chronic or latent stage.

Neisser has investigated one hundred and forty-three cases of gonorrhea, which had existed for more than a year, with regard to their contagiousness. In more than half his cases repeated injections of corrosive sublimate solutions had been employed, one to twenty thousand. Quadrate heaps of gonococci were found in the pus. He regarded such cases but slightly dangerous in occasional coitus, but certainly dangerous in marriage.

Schwarz says the more abundant the gonococci and the greater the vitality the more contagious is the pus in which they are found. If now this abundance and apparent vitality can be suddenly called forth by excesses in drink, coitus, activity, and mechanical irritation, is it not fair to suppose that a gleet or a latent gonorrhea, which through coitus reproduces an acute exacerbation in the person affected, could also reproduce the disease in the female with whom coitus took place?

Numerous cases of ophthalmia neonatorum showing typical gonococci are due to a vaginal discharge in the mother which had been regarded as a simple leucorrhea, and those precautions neglected which would have been taken *ante partum* had the discharge been examined and gonococci found. I have thus traced by means of the gonococci a purulent ophthalmia in a child through the mother, who was innocent of her disease, to an infected husband. When we consider the vast number of severe and possibly fatal diseases of women, such as perimetritis, disturbances of menstruation, sterility, pyo-salpinx, peritonitis, etc., which are directly traceable to a previous gonorrhea, the importance of early diagnosis and thorough treatment is apparent, leaving out of consideration the danger of infection to the male and to the offspring. Gynecologists are coming to recognize more and more that many diseases of the uterine appendages are due to gonorrhea, and the gonococci will be of no small aid in confirming such cases. Another extremely important *rôle* the gonococcus has to play will be found in medico-legal practice. A wife accuses her husband of having a gonorrhea by which she becomes infected, suffers serious consequences, and sues for a divorce. Are gonococci present? Do they prove the case? A man is accused of rape; he is supposed to suffer from gonorrhea. Do the secretions from the victim's vagina show the characteristic organisms of the disease?

What Influence has the Discovery of the Gonococcus had upon Treatment?—C. W. Allen, M. D., of New York, answers this question in the Journal of Cutaneous and Genito-Urinary Diseases, as follows:

Although the favorable results which might have been hoped for from bacterio-therapy can not be said to have been fully realized, much benefit to therapeutics has come, I think, from the discovery of the gonococcus. Although the results so far obtained by those who advocate and use germicide treatment do not appear much superior to those following many of the older plans of treatment, still such complications as stricture, epididymitis, bubo, etc., would appear of late years to have diminished in frequency. The tendency now-a-days is to carry out treatment in a more thorough manner, and to treat those cases which formerly were neglected, being regarded as non-virulent. Again in the matter of prophylaxis much is being done to prevent lying-in women from infecting their offspring, and by early treatment of the eyes of the new-born to guard against that destructive gonorrheal form of purulent ophthalmia.

Haussmann, following up the undoubted favorable results obtained by Credé's method of guarding against ophthalmia neonatorum, proposed the injection of a two-per-cent solution of nitrate of silver into the urethra immediately after impure intercourse. He says ten drops of the solution are sufficient to destroy the gonococci.

If we regard gonorrhea as a parasitic disease, we would naturally seek our remedies among the parasiticides; the desideratum being to find some means of destroying the microbes without doing injury to the tissues. Many germicides have been recommended. Among them are to be mentioned more especially solutions of bichloride of mercury, ranging in strength from one to five hundred to one to twenty thousand; permanganate of potash, in solutions ranging from a grain in every six or eight ounces to a grain to the ounce; solutions of quinine one part to one hundred. Solutions of carbolic, boracic, salicylic, and other antiseptic acids have been advocated. The bichloride solution is the one most generally employed at the present time.

To be efficacious, the use of a bichloride or other solution must be thorough and searching. Simple injections are not sufficient, as they do not carry the solution, as a rule, to all portions of the diseased urethra or female genital apparatus. Douches and irrigations made with heated solutions appear to give better results than when used cold. Undoubtedly the heat has a beneficial influence, especially in highly inflammatory conditions and where neighboring organs are implicated. In women, the cervix uteri and the upper portions of the vagina must be carefully treated by tampons soaked in the antiseptic solution, as advocated by Dr. Currier. In the same way, a gonorrhea which involves the deeper portions of the urethra is not reached by injections as usually practiced. Prolonged deep irrigation from behind forward, or the use of Ultzmann's capillary catheter, or some similar instrument must be employed to carry the fluid to the desired spot.

I have recently seen a case in which, after three days' treatment with a bichloride solution, no gonococci could be found, although some pus still remained in the discharge, which was slight and watery.

I have treated gonorrheal pus removed from the urethra with solutions of corrosive sublimate and peroxide of hydrogen, and upon staining and examining the specimens I have not been able to find that the gonococci were seriously affected to all appearances, much less destroyed. The peroxide of hydrogen solution destroys the pus cells, leaving the groups of contained gonococci unaltered.

Prof. Jaccoud says the only antiparasitic agents, the utility of which has been established in gonorrhea, are carbolized water and chloral, injections of one part to six hundred for the carbolic acid, and two or three hundred for the chloral; but all these measures need an internal treatment added as well, and this medication remains to day what it has always been—that is, copaiba and cubebs. This view agrees in the main with the one I hold at the present time regarding internal treatment. I expect, however, better results from anti-parasitic agents than we have so far obtained when methods of employing them shall be perfected. In the present state of our knowledge of the subject, I think the following conclusions are justifiable:

1. A micrococcus is found in gonorrhea and gonorrheal diseases which is not found elsewhere.
2. It is in all probability the specific microbe of gonorrhea.
3. Its discovery has been of great practical value, especially as regards diagnosis and prophylaxis.
4. The method proposed by Roux furnishes us the most convenient means of proving the identity of the gonococcus in doubtful cases of gonorrhea.
5. As regards treatment, the discovery of the gonococcus can not as yet be said to have produced any decided advances.

TREATMENT OF PLEURISY IN PARIS.—Prof. Jaccoud spoke of the Indications for Thoracentesis in Acute Pleuritis. He presented two patients, and instituted different treatment in each one. The patients, one aged thirty and the other forty, both had had apparently good health up to the present attack of acute pleurisy with considerable effusion. One of them had entered on the eleventh day and the other on the sixteenth day of illness. In both of them signs were found of tubercular alteration at the summit of the lungs, and therefore the prognosis was not very favorable as to ultimate results. The only apparent difference between them was, that No. 1 had slight fever, in No. 2 the disorder was apyretic. Then as to the quantity of liquid there was a difference. The effusion in No 1 was already large when he entered, and it continued to increase almost under the eyes of the attendants, filling the pleural cavity to completion, as the percussion-sounds showed; while in No. 2 the liquid did not occupy more than the inferior two thirds of the thoracic cavity; but it was on him that Dr. Jaccoud practiced thoracentesis, while abstaining from doing so on the other patient. The only reason he gave at the time was that one was a right pleurisy and the other a left; but now he explains his action as follows:

"It must be always remembered that dyspnea is not the only indication for thoracentesis. Certainly it is a very important one when it exists, and when caused by the effusion; but there are plenty of patients, like these two, who have no dyspnea at all, and a particular interest resides in such cases as regards the opportunity of paracentesis. First of all, the side must be taken into account. In right pleurisies there is no immediate danger, as a rule, and, if the febrile process has not ceased, internal medication can be tried with a fair promise of success; but if the patient be not seen until it is too late—that is, when all the febrile disturbance is over—then nothing can be hoped for from medicine, and aspiration becomes obligatory at once. In left-side cases of effusion without dyspnea, the principal point is to notice the quantity of the liquid and the displacement of the heart and other organs; the functional symptoms are not of so much account. If the patient has arrived at the apyretic stage, and there is no displacement of the heart or liver, then wait; and this is why the therapeutics differed in the two cases. In No. 2 the indication was to operate at once. The effusion occupied two thirds of the cavity, but the heart was displaced to the right at least two fingers' width from the right sternal side.

"However, notwithstanding these practical rules, if you have a doubt about this matter, always practice thoracentesis in any given case; because, when properly performed, it is always an innocent operation. But do not forget the precautions that Prof. Dieulafoy often speaks about; which are, *never to empty the pleural cavity entirely*, nor allow the liquid to flow out too quickly. Give time for the lung to expand, and stop if the cough becomes too fatiguing; because it may be caused by the influence of the air compressing the lung. This is the indication to stop the discharge of fluid; but, as a rule, the quantity should not be over twelve to thirteen hundred grams (over a quart). The classic precept given is to make the puncture in the axillary region; but this must vary with the patient, and it should be practiced in the region where there is the greatest effusion. The second patient, who was not aspirated, was submitted to the tartar-emetic treatment with drastic purgatives, and from the administration of thirty grams of the *eau de vie allemande* (a tincture of jalap and scammony) and thirty grams of syrup of buckthorn (*Rhamnus catharticus*) he rapidly improved."

The case presented for the consideration of the Medical Society was one of M. Debove's, which he called *latent purulent pleurisy*, and a discussion took place about the treatment of such cases. M. Debove himself said that the patient was a man of about thirty, who had been ill for six months, more or less, before he came to the hospital, but his malady did not prevent him from working. Upon examination, a considerable effusion was found on the left side with displacement of the heart. He was aspirated, and a quart of liquid of a sero-purulent nature taken away on several occasions with the result that it came back again. He was then left alone, this time for two years, and engaged in light work about the wards. He suffered some, and his digestion was bad, but still he was in passable health, and Dr. Debove thought best to abstain from all treatment, and he asked the opinion of his fellow members with regard to the management of these cases of latent pleurisy, which had been described by De Mussy and Dieulafoy.

Dr. Rendu, of the Necker Hospital, and Dr. Bucquoy, of the Hôtel-Dieu, thought that in such a case it was well to commence by successive operations and allow the lung to dilate, and then, when the pleural cavity was small enough, practice an empyema operation, to be followed by Estländer's operation or not, according to the indication. Dr. Dumontpallier said he was not a partisan of aspiration, that might be repeated forever; but that as soon as an effusion was shown to be purulent he would advise large incision under antiseptic methods. He was not at all in favor of aspirating instruments, but thought the puncture should be made with an ordinary canula, so that it would be the elasticity of the lung alone that would push the liquid out, as it expanded, this and the movement of the thoracic cage would be enough to make the liquid flow out as the lung filled up. He was of the opinion that great harm might be done by sudden aspiration.

M. Debove and others concluded that, after the poor success they had seen from paracentesis, it would be best to abstain unless danger from asphyxia was present.—*Medical Times.*

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. III. SATURDAY, APRIL 16, 1887. No. 8.

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H. A. COTTELL, M. D.,
D. T. SMITH, M. D., } - - - Editors

A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

Books for review, and all communications relating to the columns of the journal, should be addressed to the EDITORS OF THE AMERICAN PRACTITIONER AND NEWS, Louisville, Ky.

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EDITORIAL SHORTCOMINGS.

THE AMERICAN PRACTITIONER AND NEWS, we think, of all medical journals in the land, has the least right to complain in the matter of selections made by various journals from its pages. Hardly a mail comes in that does not bring us back an editorial, a translation, or extract from an original article. Of course, this is very pleasant when we get the credit, and moderately pleasant even when we don't. Like the Arab's mare, we like to see our articles show up even when ——— no, not that; even when the credit is forgotten.

We have borne much, as we said, patiently, for so much appreciation made up for a little wrong now and then. But when Brother James, of St. Louis, comes in this week, taking editors to task for filching from his columns without credit, and in the same number has our translation of an article on colchicine not credited, the spirit moves us to speak out.

And while wondering at the inconsistency of our learned Brother James in treating us so, along comes the Philadelphia Medical and Surgical Reporter, with a new method of treating poisons by means of saline injections into the veins, translated by us, copied without credit. Now, if these offenses had been committed by editors of meagre linguistic endowment we could have excused them, but for two men like Brethren James and Brinton, who speak more languages than they know what to do with—well, we won't say.

Seriously, we think a translation ought to be credited both to the originator and translator, which can be easily done by affixing the names of both journals.

LOUISVILLE CITY HOSPITAL.

A called meeting of the staff of the Louisville City Hospital was recently had for the purpose of urging upon the Board of Charity Commissioners, the urgent need of better facilities at the hospital for the performance of severe surgical operations.

Various points were discussed, the two measures that received the most attention being the building of pavilions in the hospital grounds, as is the case with some Eastern hospitals, and fitting up a ward in the present building so as to secure immunity from sepsis. Those favoring the idea of pavilions insisted that there were no available means of rendering the present hospital aseptic, owing to long use, imperfect construction, and the occurrence of infectious diseases in all the wards. On the other hand, it was contended that pavilions, even if provided, could be used only for a few months in the year, as the students of the different schools have, under the present arrangement, which is not likely to be disturbed and ought not to be, the right to witness operations. These could not be done before the class and then the patients removed to pavilions outside. It is quite clear that if the material in the hospital is to be used for the purpose of teaching, and unless it is our students will be deprived of much useful instruction, the contemplated operating room must be provided in connection with the present building and under the same roof.

A committee, headed by Dr. Satterwhite, was appointed to wait on the Board of Charity Commissioners, represent the true state of affairs to the board, and urge the propriety of making the needed improvements. This committee have had interviews with Mayor Reed, who has given them encouragement but as yet nothing definite has been accomplished.

As the committee represented to the board, all who are acquainted with the condition of the hospital are agreed that it is positively perilous to undertake any serious surgical operation there as matters now stand. All the wards have water-closets, and there is no means of isolating patients operated on from the infectious influences of the rest of the hospital. There is no suitable place provided for keeping the surgical instruments in a proper condition, storage for these being at present actually found in the dead-house.

The committee recommend that the ward now used for colored female surgical patients be overhauled, thoroughly disinfected, and fitted up for operating-rooms. This, they say, can be done in a satisfactory manner for about four hundred and seventy dollars. This really seems to us the most feasible procedure, and the only one in the present state of things that there is any hope of accomplishing. The experience of the Vienna Hospital, which had been a most destructive focus of infection for generations, and which has nevertheless been made one of the most healthful in all Europe, leaves no reason to doubt that the Louisville City Hospital can easily be rendered in every way fit for the purposes contemplated.

Notes and Queries.

Editors American Practitioner and News:

Phthisis Pulmonalis determined by a Needle entering the Palm of the Hand. Miss R., a well-developed girl, sixteen years old, whose family history was excellent, came to my office in the fall of 1882. She stated that a week before, while washing clothes, she ran a needle into her left hand, and that it broke, leaving a piece imbedded in the palm. I found the hand swollen and tender, with a red stripe running up the arm to the axilla, due to lymphangitis. The axillary and superficial cervical glands were also swollen and tender on pressure.

Under an anesthetic I removed a piece of needle one inch in length. I prescribed tincture of iodine, to be applied over the inflamed lymphatics and enlarged glands, and a slippery-elm poultice to the hand. Within a few days the wound in the hand healed, and the lymphangitis and enlarged axillary glands disappeared. But the enlarged cervical glands, five or six in number, had increased in size, and were now about the size of cherries, and their borders were approaching each other. Her general health still remained excellent, and she had no pain. I ordered iodide of potassium three times a day, and an ointment containing iodine to be applied over the enlarged glands. This treatment was continued for about two months, at which time the tumors or glands had coalesced, forming an irregular growth, about the size of a hen's egg, situated just below the angle of the left lower jaw.

She now drifted from under my care, and I heard nothing more of the case until October 15, 1886, when I was called to treat her. She stated that the enlarged glands had remained about the same size as they were in 1882, when I saw her, until the fall of 1884, at which time the tumor began to diminish, and that shortly afterward she developed a cough, which had continued until that date; that she expectorated a great deal, had night-sweats, with shortness of breath and spells of smothering. Her general appearance was that of one in the last stage of consumption, and in fact she proved so to be. She gradually sank, and, after repeated attacks of pulmonary hemorrhages, died December 18, 1886, at which time the tumor was about the size of a cherry. It had never suppurated. The exciting cause of the phthisis in this case seemed to be the caseous degeneration of the enlarged cervical glands produced by the needle-wound of the hand. There was no *post-mortem* examination.

Huntingburg, Ind. W. R. M'Mahan, M. D.

The May number of the Southern Bivouac will contain an article by Dr. D. T. Smith, one of the editors of The American Practitioner and News, entitled "The Gathering of the Waters; or, the Evolution of Seas and Rivers."

The writer endeavors in this essay to explain, on a principle which he claims to have discovered, a number of interesting points in the movements of water and other fluids which have not hitherto been treated in a manner satisfactory to science. Among the questions brought up for explanation are: (1) The cause of the existence of streams; (2) of the trough shape of channels; (3) of the succession of deep and shallow places in streams; (4) of the moving of floatage to the middle of streams; (5) of the *locus* of greatest speed being not at the surface, but some distance beneath; (6) of the formation of natural levees along silt-bearing rivers; (7) of the multiple mouths of delta rivers; (8) of the elevation of the middle of streams; (9) of the hitherto unaccountable loss of speed in streams flowing down sharp inclines.

Dr. Smith claims that the key to these questions is a principle pervading the motion of all fluids in channels, which he denominates "The law of the double spiral." It is that every stream, of necessity, resolves itself into two equal cylinders, revolving on parallel axes in opposite directions; that is, outward at the bottom, upward at the margins, inward at the top, and downward through the middle. The principle, it is claimed, applies also to glaciers.

The practical bearing of the principle to the problem of the Mississippi is considered at length. The processes by which the seas have been formed and the land raised, and its surface shaped as we now find it, are also embraced in the discussion.

The problems discussed have been thought worthy of diligent study by nearly all eminent physicists of modern times, embracing such names as Vecchi, D'Alembert, Sir Isaac Newton, Tyndall, Lyell, Agassiz, Eads, and a host of others.

Whether or not Dr. Smith has discovered the key to this puzzle of centuries remains to be decided, but it can hardly be doubted that scientific recognition is in store for whoever may have the good fortune to find it.

PENSION DOCTOR: What battle were you in? Pension Fraud: Bull Run. Pension Doctor: Were you wounded there? Pension Fraud: I would have been if I had waited. Pension Doctor: For what do you claim a pension? Pension Fraud: For loss of wind.

HEADACHE.—(Dr. J. T. Whittaker): Headache is not a disease; but a symptom; but a symptom of so many diseases that we ought to be on our guard when it manifests itself with exceeding severity and persistence. In the latter instance the eyes should be examined for the possible existence of a choked disc. All infectious diseases are ushered in by headache, and we are aware of the atrocious headache of cerebro-spinal meningitis, smallpox, and malaria. Headache is also a cardinal manifestation of uremia. The headache—the essential headache—is that with no discoverable lesion, no intoxication of the blood, no discoverable chemical, no biological cause. This brings us to migraine. The majority of these cases occur in individuals otherwise perfectly well. It is a pure neurosis, allied to epilepsy, hysteria, or more markedly to neuralgia. There is an underlying condition due to heredity, and an explosion due to some exciting cause, an emotional disturbance, an indigestion, etc. The speaker would divide migraine into the paralytic and spastic forms. In one the face, on one side of it, is flushed, the eye is suffused, the pupil is dilated, and there is mild lateral sweating. In the other the face is pale, the pupil contracted, the skin is dry. Transition forms occur in the same case and in the same attack.

Treatment. It is not necessary always to build up the body. In the majority of cases the body is already built up. There is no lesion, no anemia, no chlorosis, no blood poisoning. The true treatment of this headache at the present time is the treatment of epilepsy and hysteria. We are justified in cutting short an attack of migraine, if it be of long duration; and, as stated, the best remedy here is the bromide, which is only of value in controlling the attack. It is not proper to place the patient upon the bromides for months. This treatment will result in a degradation of the mind. Sixty to one hundred and twenty grain doses continuously for months will produce a dullness of intellect worse than death. There is one remedy of great value in treating the underlying state, and that is atropia. It can be given without harm, and it is easy to remain on this side of the danger line.

Antipyrine, given in five-grain doses every fifteen minutes until twenty to thirty grains have been taken, will often abort or shorten an attack. But the two remedies upon which the speaker relies in the prevention of headache, at least in the prolongation of the intervals, are atropia, as stated, and arsenic.—*Cincinnati Lancet-Clinic.*

Hager's Catarrh Remedy.—The formula recommended by Dr. Herman Hager is as follows: Of carbolic acid, ten parts; alcohol, ten parts; water of ammonia, twelve parts; distilled water, twenty parts. Take two-ounce wide-mouthed bottles, fill them to one third with the above liquid; then introduce a bunch of (absorbent) cotton of sufficient size to soak up all the liquid; to be used in incipient cold in the head, coryza, chronic catarrh, etc. A stronger preparation, also recommended by Dr. Hager, is the following: Carbolic acid, ten parts; oil of turpentine, five parts; water of ammonia, twelve parts; alcohol, twenty parts. To be used in the same manner as the preceding. Hager recommends those as prophylactics against diphtheria. He advises all those who handle and are about patients suffering from diphtheria or phthisis, to place a vial with this *olfactorium* to the nose when they approach the patient.—*Therapeutic Gazette.*

Nasal Polypi —Dr. William R. Bell (Canada Medical Record) describes a new, painless, and simple method of removing nasal polypi. His patient is instructed to blow strongly through the affected nostril while he closes the other with his fingers. This brings the polypus down so that it can be seen. He then injects into the tumor, with a hypodermic syringe, fifteen or twenty minims of a solution of tannin in water (twenty grains to a fluid dram.) In a few days the tumor shrivels, dries up, and comes away without trouble or pain, the patient usually removing it with his fingers or by blowing his nose.

Tobacco Asthma.—Russo Gilberti reported to the Società d'Igiene (*Le Sperimentale*) numerous cases of functional disorders caused by tobacco, among which is the following: A young man twenty-four years of age, well developed and nourished, but of an erethistic temperament and a hereditary tendency to convulsions, was seized with severe attacks of asthma, which he attributed to smoking. His physician advised him to discontinue the use of tobacco and avoid rooms where there was tobacco smoke, and for more than a year he has not had the slightest attack of asthma.

This case confirms the opinion of Peter, who considers tobacco a true poison to the pneumogastric, and may, even in small doses, injure those who are specially susceptible to its influence.—*Buffalo Medical and Surgical Journal.*

A Sanitary Conference.—A public sanitary conference, under the auspices of the State Board of Health, will be held in Liederkranz Hall, this city, on May 24th and 25th. A committee of arrangements appointed to select the time and place of meeting and papers for discussion has reported the following names of gentlemen selected as officers: James P. Boyce, D. D., LL. D., President; Mr. W. N. Haldeman, Major J. M. Wright, Mr. Wm. H. Dillingham, Mr. Jouett Menefee, Col. Bennett H. Young, Mr. J. M. Robinson, Mr. Daniel E. O'Sullivan, Mr. James G. Carter, Mr. Theodore Harris, Dr. R. C. Hewitt, Vice-Presidents; Dr. J. N. McCormack, Secretary.

A large number of papers are promised for the occasion, and the conference promises to be an interesting one.

Niemeyer says that, according to his observation, "obstinate chlorosis attacks all young girls without exception in whom the menses have appeared in the twelfth or thirteenth year, and before the development of the breasts and pubes."

Dr. John Godfrey goes shortly to Washington, whither he has been ordered as a member of the board of surgeons for the examination of applicants for positions in the Marine Hospital Service. The board is to meet on the 25th inst.

Bile-salts and Cod-liver Oil Inunctions. Dr. H. A. Hare, of Philadelphia, finds that the addition of bile-salts doubles the rapidity with which cod-liver oil can be rubbed into the skin.—*Boston Medical and Surgical Journal.*

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. III. [NEW SERIES.] LOUISVILLE, KY., APRIL 30, 1887. No. 9.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

PULMONARY TUBERCULOSIS; ITS ANTISEPTIC TREATMENT.

An Essay for the Merritt H. Cash Prize.

BY GHISLANI DURANT, M. D., PH. G.

"Man, whose breath is in his nostrils." Isaiah ii, 22.

It is generally accepted as a sound doctrine to attack directly the local trouble while not neglecting the constitutional conditions which may accompany it. Hence the treatment of tuberculosis will consist in rendering the organic center unfit for the cultivation and development of the parasitic cause of that disease by impregnating it with some substance which, while destructive to the parasite, yet is not injurious to human life.

Corrosive sublimate, iodoform, bromine, ethyl, and methyl alcohols, sulphurous, arsenious, boric, and carbolic acids have all been tried. More or less benefit has been derived from the use of each of these, but the greatest good was produced by the use of carbolic acid.

In volume 52, page 139, Med. Chir. Trans., London, there is an article from Mr. A. E. Samson, of which the following is a condensation:

The progress of scientific inquiry has tended greatly to establish the doctrine that many of the diseases which afflict the animal body are due to the influence of organized particles, and that these germs of disease, transmitted *ab extra* to the living organism, grow and multiply, and by their growth and multiplication inaugurate the various phenomena of disease.

Concerning the physical qualities of these organized germs it is known that, though they vary in size in the cases of different diseases, they are almost incalculably minute.

These germs are readily capable of destruction by certain influences. Some chemical agents kill them by effecting their decomposition; other agents render them inert by robbing them of their vital endowment.

From a large series of observations it may be concluded that the sulphites arrest and prevent the development of organized germs, and there is great reason to infer that they do so by reason of no chemical influence, but by reason of a faculty which they possess of arresting the vitality of low organisms.

There is another agent, however, which has been proved to manifest a similar and probably a higher power in extinguishing the life of low organisms; this agent is carbolic acid.

It is known to have a powerful influence in killing fungi, microzoa, insects and their ova, in fact, all the lowest forms of animal and vegetable life; it arrests fermentation and putrefaction, not by inducing any perceptible chemical change, but simply by extinguishing the vitality of ferments. It is ascertained that a quantity of carbolic acid sufficient to destroy myriads of lowly endowed organisms may be administered to mammalia without inducing any deleterious effect upon the latter.

Carbolic acid has been employed as an internal remedy in many cases of disease, especially those in which the system is embarrassed by the presence and multiplication of organized poisons. In the treatment of cholera it was found to be valuable; no agent has been discovered more potent than carbolic acid to destroy the vitality of organized particles; if, therefore, it be possible to administer to the living body a sufficient quantity to prove fatal to the contained organisms, there are good grounds for expecting a successful treatment.

In carbolic acid—its purity being ascertained—we have a medicine which, in proper doses, can be given without interfering in any way with the alimentation of the patient, and if the effects produced are not always identical, it is owing to the fact that the acid itself is not always identical.

In the administration of a medicine, especially of an actively toxic one, three distinct questions must be answered: (1) What quantity can be introduced in the organism without danger or even inconvenience? (2) What quantity must be given to obtain the best therapeutical effects? and (3) What is the best manner and form of administration?

The daily dose of carbolic acid for an adult, by the stomach, is from twenty-five (four tenths of a grain) to fifty (eight tenths of a grain) centigrams to begin with, gradually increased to one or even two grams (fifteen and one half to thirty-one grains). Nothing is gained from larger doses, although patients have been known to take three grams in twenty-four hours without experiencing any thing more serious than cephalalgia, or momentary inebriation.

As carbolic acid is a true alcohol, it diffuses rapidly into and is quickly eliminated from the system. Hence, first, it should be given greatly diluted; second, it should be given in repeated doses.

Experiments have proved, first, that one gram of the acid dissolved in twenty grams of water produces far greater toxic effects than the same quantity dissolved in five hundred grams of the same vehicle; and, second, that one gram of the acid dissolved in either twenty or five hundred grams of water produces a greater toxic effect when given in a single than when administered in divided doses. So, as the elimination of carbolic acid by the human body takes place rapidly, the best results will be obtained by the most frequent administrations.

If, on the one hand, the advantages of stomach medication are numerous and important, as facility of administration and possibility of the patient taking the required doses; on the other, the accuracy of dosage, the rapidity of absorption, and the constancy and regularity with which that absorption takes place when given hypodermically, make this method of medication a very precious one. One hundred and twenty five milligrams (two grains) of the carbolic acid in one hundred minims of water, injected twice or three times a day, give far better results than one gram taken into the stomach.

But it is by the method of pulmonary inhalation that we can best not only help the general absorption of these medicaments, but also secure a local action fulfilling a special indication. We know that the whole volume of the blood passes through the lungs in a brief period, is there exposed to the action of the air and undergoes a great change, oxygen is absorbed, carbonic acid given off, and that this change is necessary to life. In the lungs we have, then, a natural apparatus specially framed for the purpose, and by which antiseptic remedies can be rapidly and effectively introduced into the blood.

Historic. Antiseptic inhalation can no longer be regarded as a novelty in pulmonary therapeutics. It would be almost invidious to name in this connection the many distinguished physicians who have recognized the important bearing of the antiseptic views on the pathological relations of suppurative processes in the lungs, and their treatment.

At different epochs attempts have been made to effect direct medication of the pulmonary tissues. That its importance was from time to time recognized, there is abundant evidence in the works of older physicians. This importance was even occasionally exaggerated by them; thus the renowned physician Mascagni said, "If ever a specific should be devised against consumption, it would be such as to be introduced into the organism through the windpipe."

It is hardly necessary to the present purpose to trace from the early records to the present time the gradual development of the subject beyond its general character.

In 1834 Martin Solon published in the *Gazette Médicale*, Paris, an important work on "Atmiatrie Pulmonaire." He had been led in his researches by the opinion of Mascagni. He prepared an apparatus for fumigation, a vial with two tubes containing a medicated solution, which the air was to go through before penetrating the respiratory tract. The temperature of the solution varied according to the nature of the active substance. He tried chloride and iodized fumigations; then balsamic fumigations composed of water, to which was added tincture of tolu or benzoin. In dry catarrh he succeeded in quickly calming the frequent and fatiguing cough by the inhalation of vapor from a decoction of belladonna.

In the same year (1834) Magistel published a note on the use of pulmonary fumigations. From his researches, he concluded that narcotics carried by vapor in the bronchi are the best therapeutic agents to employ against asthma, convulsive cough, nervous cough, and whooping cough.

Burdin, at the same time, was treating his phthisical patients with inspirations of ether charged with the principles of hemlock. It is easy enough to see that only a soothing, palliative effect could be derived from this treatment.

As early as 1828, Dr. Berton advocated inhalations of iodine in the treatment of pulmonary phthisis; he also recommended them in chronic bronchitis. They were soon abandoned in France, but found their way into England to become in great favor for a while.

The movement was again revived in France by Piorry and Chartroule, who caused the vapors of iodine to be respired by placing near the sick-bed a saucer containing small fragments of that substance. According to Trousseau and Pidoux, those inhalations produced good effects, especially in the bronchorrhea of the phthisical, as well as in laryngitis and chronic bronchitis. In their work, "Traité de Therapeutique," these authors recommend a special method of inhalation as a means of modifying the mucous membrane of the respiratory tract.

In 1845 Sales Girons pointed out the advantages of the inhalations of tar for consumptives, whom he kept also in an atmosphere charged with resinous emanations. He explained their action by admitting that they diminish the oxygen of the air, which he considered as the agent of excitation and a cause of progress in the diseases of the respiratory organs.

More recently (1861), Delioux employed the fumigations of frankincense in bronchitis, with benefit, and especially in chronic pharyngitis.

In Germany, Langenbeck constructed a medicated respirator. It consists of an upper and a lower flattened ball made of box-wood or oak; in front and behind are bored six to nine small holes. The apparatus is divided in two by a screw-thread. The medicament is placed in the center of the respirator, spread on lint when it is fluid, or rolled up in gauze when it is solid; the ball is then shut and held to the open mouth of the patient. Langenbeck claims that elder and chamomile flowers, with a drop of anise oil, promote the expectoration in violent catarrhs. He uses peru and copaiba balsams in catarrhs of the pharynx and trachea, and by the respiration of air cooled by ice and acetic acid seeks to produce a limitation of the fever.

Cheron, toward 1871, communicated to the Academy a work on the arrest of destruction of the lung tissue in chronic phthisis by the inhalation of "Oxygenized Essences." He used, particularly in the ulcerative period of phthisis, inhalations of essence of laurus camphora. He states that, under the influence of the treatment, expectoration, dyspnea, and cough, improved, appetite and strength returned, and the hectic fever diminished and soon disappeared.

Oliver (1871) recommends a respirator by which he gives inhalations of carbolic acid in phthisis and in putrid bronchitis.

Sigg constructed an apparatus, consisting of two wires and a box; it is used for inhalations of etherized oils. For bronchial catarrh and broncho-blenorrhea, he employed spirits of turpentine and oil of turpentine, with equal parts of a twenty-per cent alcoholic solution of carbolic acid.

As far back as 1876, Dr Mluler, a Berlin chemist, used antiseptic inhalations in the treatment of phthisis. He recommended borax and salicylic acid, on the theory that in pulmonary phthisis a portion of the lungs is in a state of decomposition, or of alkaline fermentation; and as similar processes in open wounds are controlled by antiseptics, so he expected the inhalations of antiseptics might exert an inhibitory action on the morbid process in the lungs and effect a cure. The solution he recommended was 750 parts of water, 25 parts salicylic acid, and 19½ parts borax.

Some time in 1876 or 1877, Dr. William Roberts, of Manchester, England, described a simple portable "respirator inhaler" in the form of a metal box perforated in front and behind, and filled loosely with layers of tow, on which the inhalent was poured. The inhaler fits over the mouth, and is fixed by elastic bands over the ears like an ordinary respirator. The introduction of this instrument, although the medical profession as a body may have failed to recognize it, was undoubtedly a step in advance. It showed the practicability of a method of *continuous inhalation.*

In No. 29, *Berliner Klinische Wochenschrift,* July 21, 1879, Dr. H. Curschmann, late of Berlin and now director of the Hamburg General Hospital, described a respirator in principle similar to that of Roberts. It is made of vulcanite, and where it touches the face it has a rim of soft india-rubber to insure close contact and prevent air from entering the lungs except through the respirator itself. Dr. Curschmann's respirator covers both mouth and nose.

The substances poured on the sponge for inhalation are well-known drugs, pure oil of turpentine, carbolic acid, and thymol, either pure or diluted with from one to three parts alcohol and creasote. In using them pure, or but very slightly diluted, Dr. Curschmann's application differs from that of most practitioners; and yet the most careful examination of the urine after the prolonged inhalation never revealed the least renal irritation, nor did the patients complain of any unpleasant symptoms, except occasionally a little oppression and headache. Undiluted carbolic acid, previously liquified by gentle heat, is employed by Dr. C. He has never seen any irritating effect produced either on the inside of the mouth or on the larynx by the administration of the vapor of carbolic acid in so concentrated a form, nor has any instance of so-called "carbolic intoxication" occurred in his practice. He explains the harmlessness of the pure acid when inspired, first, by the small amount of it which evaporates and reaches the lungs at all, and secondly, by the fact that a large part is, very soon after reaching the dilated bronchia or cavities, expectorated with their secretions, and that the false membrane lining these cavities probably offers considerable resistance to its absorption into the system.

This marks the era of continuous antiseptic inhalations. Hitherto the patient had been made to inhale for a few minutes at a time several times in the day. From this time a succession of celebrated names is associated with the subject of pulmonary medication by continuous antiseptic inhalation, and great varieties of apparatuses, more or less elaborate, have been introduced from time to time for the purpose. Of all of these McKenzie's respirator seems the best adapted to fulfill all indications. Still it has many objectionable features; it is clumsy; the patient can not spit, while the very substances inhaled force him to expectorate; he can not talk; and, to be really of service, the respirator should be worn by the hour together, or even during the greater part of the day. The wearer objects, as he calls it, to being muzzled.

I have sought to remedy the evil without losing any of the benefits, and, by making the respirator *nasal* only, I believe I have succeeded. The instrument can be worn with complete comfort while reading, writing, or working. It is small and portable, not weighing more than one ounce, and it can be carried easily in the pocket. The air passing through the respirator becomes not only purified, but also impregnated with a certain amount of the carbolic vapor given off by the saturated pad. The quantity of the vapor inhaled may for any single inspiration be quite insignificant; but, when multiplied by the number of inspirations made in only a few hours, it is not difficult to believe that the amount would soon be sufficient to accomplish the disinfection of the purulent cavities already in communication with the bronchial tubes.

A word now as to why the respirator should be *nasal* only. "*Man, whose breath is in his nostrils,*" says the prophet.

Placed side by side, the respiratory and alimentary canals extend through the thoracic and cervical regions as far as the pharynx. Here they cross each other without meeting; the respiratory tract is continued by the nasal fossæ, the alimentary canal by the mouth, each having its special function—the former for respiration, the latter for alimentation

In the normal state the air drawn in through the inspiratory movements of the chest passes through the nose, the mouth remaining closed. It returns by the same route in expiration.

In the movements of inspiration the canal of the pharynx is completed anteriorly by the veil of the palate, which rests upon the base of the tongue. Were it otherwise, air would be inspired through the mouth and nose at the same time. While the veil of the palate is lowered by the action of the glosso-staphylini muscles, the base is arched and elevated. These movements are automatic, like those of the alæ nasi. You can not lower the veil of the palate at will, but inspire through the nose and it will fall.

The anatomical structure of the parts is different; the nose, trachea, and bronchi are lined with ciliated epithelium, the mouth and esophagus with pavement epithelium.

Physiology confirms the fact that during sleep, when the will ceases to act and we are entirely under the domination of the animal life, the mouth is closed, and respiration is carried on exclusively by the nose. It is the same while we eat; in fact, we breathe through the nose in any act where respiration is automatic. From birth, the infant always breathes through the nose, otherwise the act of sucking could not be performed.

That the nose is the regular channel through which respiration takes place has already been demonstrated; but, while respiration can be carried on by the mouth also, it can never be effected simultaneously by the mouth and nose. The physiological act takes place through the one or the other, but never through both at the same time.

Smetter has demonstrated this by means of an apparatus consisting of two glass bottles having two lateral openings. To each opening is adjusted a glass tube. One of the two dips into the water with which the bottle is half filled. The other just enters the bottle and does not touch the liquid. To the tube which does not enter the liquid a rubber tube is attached, with a glass mouth-piece for the buccal bottle and a small mask for the nasal one. Having assured himself that he can breathe freely through mouth and nose, the experimenter places the glass mouth-piece between his lips and covers the nose with the mask. Let him now inspire, and he finds that the inspiration takes place either through the mouth or nose, never through both. Remove the rubber tubes from the glass tubes to which they are now attached and adapt them to those which dip into the water. Arrange the mouth-piece and mask as before, and it will be seen that expiration takes place through one or the other opening, never through mouth and nose at the same time.

The fact having been shown experimentally, we must endeavor to explain it. When respiration takes place through the nose, we see that the contraction of the glosso-staphylini muscles arches and raises the base of the tongue so as to touch the anterior wall of the palate, thus closing the isthmus of the throat. If, on the contrary, respiration takes place by the mouth, the nares being open, the staphylo-palatini muscles contract, retracting the uvula, which, becoming embodied in the free portion of the velum, increases its thickness; then, the peri-staphylini, both internal and external, contract, stretch the velum and carry it against the posterior wall of the pharynx, thus closing completely the naso-pharyngeal isthmus. In deep breathing the tension is greater than in ordinary breathing, but in either case the air passes through the mouth, throat, and larynx, and not through the nostril. Honsell (Ziemssen's Cyclopedia) communicates some observations on the position of the tongue in new-born infants during sleep, and on the part which the mouth plays as an air-passage during breathing In healthy infants the mouth is almost closed during sleep (two hundred and ninety six times out of three hundred and twenty-eight observations) and the tongue lies in contact with the hard palate. In all cases, however, the mouth takes no part as an air passage in breathing during sleep.

We may further say that, whenever respiration takes place through both openings, it indicates a perforation of the palatine vault, a shortening of the velum, or some affection (usually inflammatory) of the throat which interferes with the contraction of the muscles of the velum and of the pharynx. This also explains the nasal tone of voice seldom absent in those cases.

Since January, 1880, I have treated by antiseptic medication seventy-two cases of pulmonary consumption, which I have classed as follows:

a. First stage of the disease.........31;
b. In the second stage...............35;
c. Third stage........................ 6.

In class *a*, numbering thirty-one, there was one death, which followed a surgical operation. Another resulted from peritonitis. Four cases were lost sight of. The remaining twenty-five now attend to their daily occupations. Of these, eighteen have gained considerably in weight, five have remained stationary, and two have lost weight. Among those originally under treatment in the first class the internal administration of carbolic acid proved objectionable in six, causing nausea. In two others constipation resulted. Upon lessening the doses the trouble disappeared. They *all* continue at the present date to manifest signs of improvement.

In class *b*, numbering thirty-five, six of the patients were non-residents, and, after consulting me, followed the treatment under the guidance of their own physicians. Of those six, two have died. One has gone to Colorado, and writes that he is miserable. Of the remaining three, when I last heard of them (October, 1886), one who had begun the treatment in 1882, had greatly improved, and was eleven pounds heavier. The other two were quite comfortable. I have reasons to fear that in some of these cases the treatment has not been adhered to as closely as in the twenty-nine who have remained under my care. Of these, one died of hemoptysis. Two who begun the treatment in 1881 have materially improved. Of five treated in 1883, three now consider themselves as perfectly cured, though I am not as certain about it as they themselves seem to be. They have all, however, gained in weight, losing their night-sweats and their cough. Of six first seen in 1883, four show to-day a great improvement. One case was complicated by diabetes, and is sometimes better and sometimes worse, his condition varying according to the amount of care he takes of himself. One case has shown no improvement. In 1884 I had five under treatment. One of these removed soon after to San Antonio, Texas, and when I last heard from him (February, 1886), he wrote as follows, . . . "I am as well as I ever was. The doctor here says the climate cured me, but I know better, and continue the carbolic acid, though not so much of it." The other four continue to progress daily and to gain in weight.

In 1885 I had under my treatment nine patients in the second stage of the disease. One of them, on being told by his family physician that I was poisoning him, left me. Eight are still under treatment, and I have watched them very closely, as I then determined to publish the results. In three, after a month's treatment, the expectoration had greatly diminished in quantity and improved in character. One, who had been wont to begin to cough and spit at a very early hour in the morning, was able very soon to lie in bed quietly until breakfast-time. Both the appetite and weight increased in these three. After two months' use of the carbolic acid their fever disappeared, and a like result was observed in two others. This improvement continues at the present time. In one of the remaining three the weight has reached very nearly to what it was before he was attacked by tuberculosis two years ago. In seven of these eight cases I can trace a distinct amelioration in those physical signs depending upon the presence of fluid in the bronchia and in those due to condensation of the pulmonary tissue. In one the improvement of the symptoms proved but a deceptive respite, for upon the advent of an attack of bronchitis the cough returned, as did the fever, and there came on a rapid softening with metallic *râles* and a *bruit de souffle*. The treatment being continued, however, he showed some improvement, and is to-day in a stationary condition.

Since the beginning of 1886 two more patients with tuberculosis have placed themselves under my care. The following is their history:

Mr. D., a banker, aged thirty-four: pulmonary phthisis dating sixteen months back. On the morning of the first day that he came under my observation (January 10th) he had coughed up a dessertspoonful of blood. Upon examination I found great dullness and loud bronchophony over the upper half of the right lung, both in front and behind. There were tubular sounds above the left scapula and below the left clavicle. His cough is harassing. He is losing flesh and strength very rapidly.

March 1st. He is already better. The breathing space is greater in the right lung. Leaves for Bermuda; still keeping up the treatment, both internally and by inhalations.

April 3d. Writes that he is wonderfully better.

May 4th. Patient returns home. Has gained six pounds, and is free from cough.

This patient has remained so to this day.

The next case was Mrs. X. History of slow evolution of phthisis dating back three or four years. Sent for me on April 11th, upon her return from Florida.

There are numerous tubercles in both lungs in an active state of suppuration. The cough is very fatiguing and almost continuous; there is an abundant, purulent expectoration, and considerable dyspnea. She also suffers from nausea, night-sweats, and hectic fever.

Present condition (November 4th): Expectoration less purulent and greatly lessened during the day, but as yet quite profuse in the morning. The cough, which had almost left her, has become a little more frequent during the past few weeks. The dyspnea is much less, appetite fair, pulse also less frequent, but there is still a little fever at night.

As regards the six cases in class *c*, in the third stage of the disease, four of them have died. The remaining two have been under treatment since 1883 and 1885, respectively. The first is alternately better and worse, and calls himself fairly comfortable at present. The other had lungs filled with tubercles in different degrees of evolution, with here and there sibilant and sonorous *râles*, moist cracklings, considerable oppression, and an abundant purulent expectoration. He showed signs of improvement until last July, when the disease resumed its onward march; the patient is at present gradually sinking.

From the epitome of these seventy-two cases I think I am justified in saying that, under the antiseptic treatment—

In the first stage, all recovered;

In the second stage, two thirds recovered or were greatly improved;

In the third stage, none were cured.

I would not be understood to assert that antiseptic medication is to constitute in phthisis a sort of universal panacea, a sure and infallible means of cure. Although my patients have followed that treatment, they have not been deprived of other hygienic and pharmaceutical agents which seemed to be called for.

Under antisepties I have invariably found, within a period not exceeding a few weeks, the fever to weaken, shorten, and disappear, and the cough, oppression, and exhaustion relieved and moderated. The sputa soon lost its purulent character and became simply mucous, while every thing pointed to the reparative work that was taking place both in the bronchia and pulmonary caverns.

I believe I have shown, in the narration of the cases, that the antiseptic treatment has been used in all the phases of tuberculous consumption, from the moment when the general constitution begins to be altered up to that time when it reaches the last degree of marasmus. If the ruin is not yet consummated, if the disease has not removed all possible conditions of curability, and if the organism yet contains suitable elements of repair, we can confidently hope for success, not merely palliative and temporary, but permanent and real.

T. Henry Green, in a lecture on Tubercle Bacillus (London, February 2, 1884), says: "When it can be shown that the pyrexia of early phthisis is reduced by such treatment, we shall have evidence pointing to the influence of the germicides upon the bacillus of considerable value." We have shown that the fever does yield to the carbolic-acid treatment.

The statement of Hanford (London, December 5, 1885), that "as yet no germicide has been found which can be administered in sufficient doses to render the fluids and tissues of the body poisonous to the bacilli without, at the same time, proving hurtful if not fatal to the patient," has also been answered in the preceding pages. As early as 1879, Samson gave in tuberculosis four-gram doses of sodium sulpho-carbolate every four hours. His results were very favorable. In a few cases there was a slight tendency to vertigo or dizziness. The urine of one of his patients, who had taken twenty-four grams of sodium sulpho-carbolate in twenty-four hours, was collected and examined. It gave no evidence of carbolic acid, a result which I have several times verified.

The question as to the accidents produced by carbolic acid has generally been dealt with by men who have no, or at most but very little, experimental knowledge of this medicament. I have administered carbolic acid in all therapeutic doses. Often I have given it consecutively for two or three months, resuming it several times in the space of one or two years, and in the numerous patients submitted to treatment for periods of four, five, or six years, I have not yet met with any accident, nor even an abscess following thousands of hypodermic injections of that substance.

The objection has been made, that, tested by experience, the treatment has not fulfilled all that was claimed for it. To this I would reply, in the words of Dr. Yeo: "Nothing is easier than to discredit any new and comparatively untried therapeutical process. It is only needful to have a becomingly skeptical turn of mind, to have some authoritative position, and to 'take up' such a process and apply it with an entire and haughty disregard of implied conditions, a selection of wholly unsuitable cases, and a contemptuous neglect of all directions insisted upon as essential to success; then publish hastily an overwhelming number of unfavorable results, and the process, however intrinsically meritorious, falls for a time into discredit."

NEW YORK.

Mr. Bland Sutton has been able to show that in monkeys and baboons the epithelial lining of the uterus is not shed, and that the amount of blood escaping is small.

ERYSIPELAS OF THE NOSE, WITH INTESTINAL HEMORRHAGE.

BY J. M. HARWOOD, M. D.

I wish to report an interesting case of erysipelas of the nose, involving the upper air-passages, and accompanied with hemorrhage from the bowels. I found during my study of this case that our American medical literature contains little or nothing relative to this form of the disease. Hence I report the case with the hope that some writer of books will give it due attention.

Rev. W. T. P., aged forty-eight, robust and healthy, about September 8, 1886, began to complain with what he thought to be a boil in his nose—left side; but sought no advice until the 15th, when he consulted me. On examination, the supposed boil appeared sluggish and in need of opening. The patient had fever, a coated tongue, and slightly constipated bowels. The nose was slightly swollen, and red on the left side. I ordered a dose of calomel, to be followed by quinine on the next day.

On the evening of September 16th I saw patient. His temperature was 103° and pulse 110. He complained of chilly sensations and some pain in the back and limbs. The swelling and redness of nose were more marked, and decidedly erysipelatous in character. It now extended to both sides of the nose. Continued quinine, and added tincture ferri chloridi in forty-minim doses every four hours, with lotions of plumbi acetas to nose.

September 17th. Temperature 100°, pulse 100. The swelling has extended over the whole nose, involving about half of the forehead and the left eye. Treatment continued, 18th, 19th and 20th. Patient remains in about the same condition. He is able to take some nourishment; bowels move about once a day. Confinement to bed is becoming irksome. He is very nervous. Iron and quinine continued. On 21st, complains of some nausea; iron discontinued. 22d, temperature 99°, pulse 100; swelling and redness leaving the eye and forehead, but the inflammation in the Schneiderian membrane is more marked, and is extending into the posterior nares and pharynx. He complains of some pain in the stomach. The secretions falling back into the throat cause considerable annoyance. I discontinued quinine and gave opiates to procure rest, mopped throat with argenti nitras, ℈j; aqua dest., ℥j; carbolized glycerine locally. From 22d to 29th there was but little change; he was quite nervous, slept poorly, no appetite, and the secretions falling from the posterior nares into the throat still are very annoying. There is also considerable heat and dryness of the throat, which is a dusky red. He complains of some pain and tenderness over the stomach and spleen. Bowels move about once a day.

The inflammation has now (29th) left the eye and forehead and is limited (externally) to the nose, which is much swollen but less red. He has taken but little nourishment or medicine during the last week. Various applications were made to the throat to allay the irritation. Besides the nitrate of silver solution, I used warm salt-water with the post-nasal syringe; solution bromide potassium, chlorate potassium, hot water, etc., as gargles. Occasionally powdered opium and astringents were given by insufflation. On 29th (night) I was called because of a hemorrhage from the bowels. I gave pill of opium and lead, to be taken often enough to control the movements of the bowels. 30th, temperature 98°, pulse 100; complains of feeling very weak. There is some tympanites over the stomach, with doughy feeling over spleen and descending colon. During the following week the opiates had so unpleasant an effect that they were not given often enough to control the bowels entirely. They moved about once a day, and the dejections were always thin and colored with blood. Furthermore, there had been three decided hemorrhages during the week, lowering the temperature to 97°, and causing considerable prostration. October 7th, redness nearly gone from nose, but it is swollen and boggy on the inner side of left nares, and seems to contain pus. I lanced it, but only a little blood escaped. From this time on his convalescence was gradual, though very slow, with a disposition to diarrhea. The secretions from the nares discharged anteriorly, and thus relieved the patient of one of his most annoying afflictions.

The points which I wish to notice are:

1. That while there was but little fever—the temperature rising above 100° but once, and generally remaining below 99.5°—there was great nervous prostration and general debility during the whole course of the disease, which neither the fever nor the local inflammation would account for.

2. The extension of the disease to the bowels, causing hemorrhage for over a week, and which three times was quite profuse.

3. Was the disease transmitted along the alimentary canal as it is wont to extend over the cutaneous surface? Or, was it a metastasis or ulceration of the glands of the duodenum, as sometimes occurs in extensive burns of the cutaneous surface, and produced by the same cause? The former appears to me the more rational theory, as the amount of surface involved was so small, and the patient lay on his back nearly all the time, with the secretions from the posterior nares falling back into the throat, thereby increasing the facilities for so transmitting the disease to the stomach or duodenum.

4. Is not this aggravated form of the disease of the upper air-passages, as well as the hemorrhage of the bowels, very unusual? And if not, why are our authors so silent upon the subject?

Nearly all the cases I have been able to find reported are by German authors, and they were generally fatal. One very similar case is reported in Ziemssen, by Bayer. This is the first case of erysipelas accompanied with hemorrhage of the bowels I have met in over twenty years' experience. If any of your readers can give statistics of the cases they have met in practice, and the proportion of deaths and recoveries, it will be interesting reading to at least one of your subscribers.

SHELBYVILLE, KY.

A LOS ANGELES PHYSICIAN recently prescribed some rectal suppositories for an old soldier. The next morning the doctor called on him and asked how he was. He answered, "First rate, doctor; but them catridges was mighty hard to swallow; I got 'em down, though."

Societies.

LOUISVILLE CLINICAL SOCIETY.

April 12, 1887, John A. Ouchterlony, A. M., M. D., in the chair.

Dr. Brandeis read a continuation of his paper of March 15th, on Popular Remedies.*

In general, the application of the milky sap derived from the euphorbia can be made without hesitation. Hours after the same has been applied to any part of the surface of the body no change in the secretions of the stomach, intestines, or lungs can be discovered; the effect is purely local.

The value of infusion into the vascular system of medicaments of various kinds, in solution, for the treatment of diseases and for the purpose of resuscitation, has been known for several years. The transfusion of blood, formerly in high estimation, later neglected, has lost all claim to general application by the recent verdict of Prof. Bergman.

The so-called infusion has replaced it. Lauderer in the last congress of surgeons gave a series of very extensive investigations and experiences on this point.

He asserts that after a moderate loss of blood infusion may be of service, but, if a loss of more than one fourth of the body's weight has occurred, it can be of no benefit. He uses a combination of one part of defibrinated blood with four parts of a solution of chloride of sodium and water. The advantage of his method is, he claims, that larger quantities can be injected, and that the danger is greatly lessened by the fact that the transfusion can be made slowly, and that in the same unit of time only one fifth part of real blood is incorporated, and the organism gains time to render the fibrin ferment innocuous. According to Ludwig a three-per-cent solution of cane sugar can be added to the saline solution, it being presumed that the addition of the sugar acts as a nutrient to the system. Animals which were deprived of one seventh of the normal quantity of their blood were not only resuscitated by the infusion of this mixture, but their vitality was completely restored. This method finds its proper application in chronic anemia and in poisoning cases as a means of inducing and stimulating the action of the heart and lungs. The operation should be fairly understood by every practitioner, and it should be the duty of every instructor in surgery to give the student opportunities to practiec it on animals. Many a case of poisoning by carbonic oxide or nitro-benzol might be saved by this means, whereas they generally perish if unusually favorable circumstances do not prevail. Where sufficient skill in performing this operation is obtained it might be made available for the introduction of drugs when the stomach and subcutaneous tissues are unfit for their absorption.

The author next mentions gelosin, from *gelidium corruum*, a Japanese moss. It is an amorphous, colorless substance, containing no nitrogen, and soluble in boiling water. When refrigerated it appears as a translucent jelly, which will do very well as a excipient for medicines to be used as cataplasms, suppositories, bougies, pessaries, and for the culture of micro-organisms. The effect of that class of drugs known as bitters upon the digestion has been made the subject of recent investigations, and the verdict seems to be against their use. They are, it is now claimed, inert as far as the transformation of albumen into peptones is concerned, but by retarding fermentation can be used with benefit in certain morbid conditions of intestinal digestion. Tchessof, however, asserts that bitters accelerate fermentation. He mixed bitters with artificial gastric juice, and found that the formation of peptones was decidedly retarded, while the digestion of fibrine was materially prevented. Albumen was introduced into the stomach after a fistula had been made. It was found that on the addition of bitters digestion proceeded much more slowly than without them. In addition, it was observed that bitters do not affect the secretion of the pancreas, but they do retard pancreatic digestion.

Absinthe, trifolium fibrinum, and citraria (a drug prepared from lichen islandicum) in large doses seemed to induce biliary secretion, while quassia, columba, and small doses of citraria act indifferently in this respect. Experiments on the sick showed that the decom-

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*Berlin *Med. Woch.*, No. 5, 1887.

position of albumen was increased after the incorporation of extract of absinthe, and after the administration of quassia and trifolium fibrinum the elimination of nitrogen from the kidneys was lessened, while from the intestinal tract it was increased.

Dr. Cottell said that infusion into the blood may be made either with the salt solution alone or with defibrinated blood, as the reader had stated. He could not see what advantage a mixture of cane sugar with it could accomplish. Cane sugar should be converted into glucose before entering into the circulation. Cane sugar injected into the vessels would be rapidly eliminated as a foreign body, chiefly by the kidneys. In some of the bitters mentioned, retardation of digestion is caused by tannin, which precipitates albuminose.

Dr. Yandell being asked to give his experience with transfusion, said he had employed it twice: once in collapse from cholera, and once after severe *post-partum* hemorrhage. In the former case sodium chloride was used; in the latter, defibrinated blood. Both died.

The next paper read was a translation from the *Wiener Med. Woch.*, of February 9, 1887, by Dr. Kuester, on

CYSTS OF THE PANCREAS.

Patient, a man forty-six years old; seldom sick until he fell from a wagon. Two years afterward had cardialgia; and, following that, gastritis and enteritis. After an attack of gastro-enteritis he was carefully examined, and a tumor in the region of the stomach led to a probable diagnosis of echinococcus of the liver. Kuester then took charge of the patient and found the following: A fluctuating tumor of the upper abdominal region, very evident when the patient stands, and showing pulsation from the abdominal aorta. Percussion proved to him that the tumor was not connected with the liver. Tentative exploration obtained a dirty yellow albuminous fluid, containing red blood corpuscles and granular corpuscles. Kuester's diagnosis, pancreatic cyst. Operation: abdominal cavity opened by an incision from the ensiform cartilage to within three centimeters above the navel. A large cyst appeared, covered at its superior extremity by the stomach, inferiorly by the transverse colon, and anteriorly crossed by the gastro-colic ligament. The last named was ligatured in several places and cut across, and the flaps sewed to the abdominal wall. The cyst was then punctured, and two and a half liters of bloody fluid obtained. The cyst was then cleansed and tamponed with iodoform gauze. Convalescence uninterrupted. At present the patient is well, and has gained forty pounds. The cystic fluid contained three per cent of albumen. The fluid had amylolitic and emulsifying properties. The intestinal evacuations show no increase of fat. The ability to digest meat is diminished.

Speaker said that the diagnosis of pancreatic cysts is not easy. The complex of symptoms that appear in other diseases of the pancreas are also seen in cystic degree. The principal one is the celiac neuralgia. The seat of it is in the celiac plexus. Pancreatic salivation or increase of the saliva was wanting in the eleven cases of pancreatic cyst which have been reported. There was also no steatorrhea or increase of fat. The digestion of meats suffers most; otherwise there are no other signs of dyspepsia. This is striking, because in spite of this fact emaciation is quite rapid. This can only be explained by assuming some unknown cause for it in the celiac plexus. The frequently noted occurrence of diabetes with pancreatic cyst points to some secondary affection of the solar ganglion. In this case there was during convalescence a polyuria, diabetes insipidus. The possiblity of diagnosis begins on the appearance of the tumor, but confusion is possible. We must exclude tumors of the liver, dropsy of the gall-bladder, echinococcus of the liver, of the gall-bladder, of the spleen, lymph cyst, aneurism of the abdominal aorta and its branches, and in women the various cystic tumors of the pelvic organs. It is strange that no correct diagnosis of pancreatic cyst was ever made upon women, yet differential signs are always present. First, the manner of the appearance of the tumor. Pancreatic cysts make their appearance in the upper abdominal region. Ovarian cysts arise from the lower abdomen. In many cases of the former palpation shows the ovaries free from diseases. Percussion will determine in many cases, as ovarian cysts seldom reach so high up as to be mistaken for pancreatic cysts, while the latter rarely descend so low that we can not obtain tympanitic resonance over the brim of the pelvis. Puncture, explorative or tentative, is only of importance as regards the presence of blood. When blood is present in the fluid there may be ovarian tumor, but in that case it is from twisting of the pedicle, and this is only possible in small cysts. Hence a large cyst which contains free blood is probably a pancreatic cyst. Dropsy of the gall-bladder can be excluded, as it is seldom so dilated as to extend beyond the median line. There are no large cysts of the liver and spleen besides echinococcus cysts. As regards soft sarcomata of the liver, puncture yields only blood or large cells. Echinococus is excluded by microscopic examination of the fluid; aneurism, by careful auscultation and percussion; lymph cysts contain a milky, fatty fluid. Thus it should not be difficult, aside from the positive symptoms, to diagnose pancreatic cysts by exclusion.

As for treatment, three methods have been proposed: (1) Simple puncture; (2) total extirpation; (3) sewing the sac (cyst walls). The first fails, as it is only a temporary proceeding, and is not without danger. The second operation is too difficult, on account of the adhesion of the cyst on all sides to vital organs which come in the region of the section. There are eleven cases of pancreatic cyst described in literature. Of five operated upon by total extirpation, four died. Of six treated as this was, by sewing the sac to the abdominal walls, all recovered.

Dr. Roberts had seen, with Dr. Bodine, a tumor which he took to be a cancer of the pylorus. The patient died, and at the *post-mortem* it was found to be a carcinoma of the pancreas—a rare disease. He does not remember if there was fatty diarrhea in this case.

Dr. Cottell called attention to two physiological facts brought out by the paper: first, the importance of the pancreas as a digester of albuminoids, and second, the absence of fatty diarrhea in the case reported. Probably the bile took the place of the pancreatic juice in digesting the fats.

Dr. Anderson reported a case of perineorrhaphy with cocaine. He saw Dr. Roberts do Lawson Tait's operation some time ago. Speaker used a four-per-cent solution of cocaine in a similar case. There was entire absence of of pain throughout. He used the interrupted suture in this case in three places on the skin.

Dr. Ouchterlony said that after Dr. Roberts' operation, which he had witnessed, coaptation was perfect. He believes himself to have been the first to use cocaine in operating for lacerated perineum. The first patient was a negro woman, who did not feel the incision and only slightly the needles. Since then he has repeatedly performed this operation without any other anesthetic, and always with satisfactory results.

Dr. Roberts reported a case of circumcision in which, after the use of a ten-per-cent solution of cocaine, the patient felt as if needles were pricking him all over the body. The face became pale and profuse perspiration appeared. He asked if others had had similar experiences.

Dr. Bloom spoke of the use of a drop or two of amyl nitrite in such cases, restoration being generally instantaneous. In general, a solution containing one grain is regarded as the limit of the amount of cocaine to be injected at one time. Still thirty grams (one ounce) of a five, ten, and fifteen-per cent solution had been injected into the bladder for litholapaxy; the last-named solution had been followed by alarming symptoms of collapse. Speaker never heard of death following its use.

Dr. Mathews asked if its use interfered with union by first intention. Dr. Roberts believed that it did. Dr. Bloom dissented.

Dr. Leber asked, "What is its hemostatic effect? I used cocaine recently, preparatory to the performance of internal urethrotomy. I operated in my office, where the patient rested for half an hour after. I then sent him to his hotel, where I was called soon after to check a profuse hemorrhage." Another case by the same speaker is as follows:

A lady, large and fleshy, had had five or six children. He had attended her in previous confinements. She had always had profuse *post-partum* hemorrhages. After the first stage of labor was complete, seven or eight pains had always sufficed to expel the child. To prevent, if possible, the *post-partum* hemorrhage, Dr. Leber gave the patient the last time (contrary to his usual practice) one dram of Squibb's fl. ext. of ergot when the os was fully dilated, and followed it up after the birth of the child by another. There was little or no trouble from flooding afterward. Patient took no chloroform.

Dr. Ouchterlony said that it is Thomas' practice to give ergot when the head sweeps over the perineum.

Dr. Bailey said he had seen, with Dr. Anderson, a lady in two successive labors in whom there was positive contraction of the cord, no ergot having been given. As a rule, he is opposed to the administration of ergot before the completion of labor.

Dr. Satterwhite gave ergot after delivery to a woman who had had convulsions in previous labors. In this case she had the same feeling, felt that she was going to have a convulsion. He gave her ergot and quinine at once, and this was followed by the expulsion of an immense clot. There were no convulsions.

Dr. Yandell spoke of chloroform and its influence on labor. He believed that his father was the first to make it in the United States; it was first used in labor in this city by Dr. Miller.

Dr. Cottell: I believe that Dr. Yandell has, in the course of a long and varied experience here. collected much material bearing upon the use of chloroform in surgery and obstetrics. I move that he be requested to read a paper before the Society on this subject.

Dr. Brandeis, in seconding the motion, spoke to the same effect, and the motion was carried unanimously.

Dr. Yandell kindly consented to favor the Society, requesting only that time should be given him to consult the other societies and those practitioners who did not go to societies.

Dr. Brandeis: Louisville can also lay claim to being the first city in the Ohio Valley in which quinia was used. Dr. Baum first prescribed it here in 1828. The speaker was the first to use the hypodermic syringe in Louisville. This he did in 1858, in a case of dyspnea, using atropine. The next case upon which he used it was on distressing rheumatic pains consequent upon osteomalacia of the pelvis.

Dr. Mathews reported a case of fistula in ano upon which he had operated. The patient was an otherwise healthy. robust man. Healthy granulation began and then ceased. What shall he do to hasten the healing?

Dr. Yandell suggested chloral, or salicylic acid, or iodoform locally applied.

Dr. Roberts showed a specimen of floating cartilage, removed by Dr. Yandell and himself from the knee-joint. It was accompanied by much effusion in the joint and lameness, and was removed with great difficulty. He also exhibited a keloid which he had removed from a woman's breast. I. N. BLOOM, A. B., M. D.,

Secretary.

Reviews and Bibliography.

A Sketch of the Management of Pregnancy, Parturition, the Puerperal State, Normal and Abnormal. By PAUL F. MUNDE, M. D. (The Physician's Leisure Library.) Pages, 110. Detroit, Mich: George S. Davis. 1887.

In this monograph the author does not attempt any thing like an exhaustive treatment of the subject mentioned in the title, but sets it forth in a manner that must render the book of great value as a nucleus of knowledge even for those who may be satisfied with nothing less than an exhaustive study of this branch of medicine. The book is all meat.

Cyclopedia of Obstetrics and Gynecology. The Pathology of Pregnancy. Being Vol. II of a practical Treatise on Obstetrics. By A. CHARPENTIER, of the Faculty of Medicine in Paris. Translated under the supervision of and with notes and additions by EGBERT H. GRANDIN, M. D., Instructor in Gynecology at the New York Polyclinic. In four volumes, with plates. Pages, 381. New York: William Wood & Co. 1887.

The second volume of the Cyclopedia opens with a chapter on diseases affecting the pregnant woman independently of the gravid state. Of the contagious diseases, we are told that about fifty per cent of all pregnant women who have cholera die, while the per centage mortality of the fetus is much larger still.

Intermittent fever is considered with its relation to pregnancy, and a number of authorities are referred to, resulting at least in proving the unsettled condition of the medical mind in that regard. Granting that the observations referred to are correct, the conclusions drawn go to prove that very erroneous deductions may be drawn from the limited manifestations of malaria in northern countries. Those who have practiced in malarial regions of the South know how entirely without influence pregnancy is in malaria. The author rightly concludes that quinine is not ecbolic, but that this notion is derived from the circumstance that the high fever for which quinine is given causes the miscarriages with which the drug is credited.

The development of phthisis and its aggravation when already present are, according to the author, promoted by pregnancy.

Of the transmission of syphilis by the father to the fetus, without participation on the part of the mother, the author says, "remains to-day incontestible, and we have observed numerous cases."

In the vomiting of pregnancy the author recommends premature delivery when, notwithstanding the employment of all the known remedies, the vomiting persists and the condition of the patient becomes perilous.

The editor, however, advises an earlier resort to this measure.

The subject of eclampsia is exhaustively treated, the names of few eminent authorities being left out of the discussion. Still there is not much that is new; it would seem that every thing has been suggested that the most acute ingenuity could discover. In his opinion, "the treatment of eclampsia to-day may be summed up in two great classes: (1) To bleed moderately. (2) To give chloral in large doses." Labor, he insists, is never to be induced; much less abortion.

Undoubtedly, in the present state of skill and knowledge, it would be better if the medical mind were disabused of all notions of reliance on the production of premature labor, or abortion, in the treatment of these cases; but it seems to us far better if not easier to wash the poisonous elements out of the blood by way of the alimentary canal than to remove the blood itself.

Passing over the subject of the diseases of the ovum and fetus, which are exhaustively treated, we come to the subject of the treatment of miscarriage, in which French gynecologists in their conservatism stand apart from the rest of the world. The author speaks in caustic terms of the readiness of American, German, and English obstetricians to resort to operative measures for the removal of secundines in abortion in the early stages of labor. And how little can we deny its justness! We may not gainsay the ability of a few skilled obstetricians to use the tent and curette in these cases with safety to their patient in a great majority of cases; but a large number of those who employ these instruments do harm, and only harm, in attempting their use without previous thorough instruction.

The volume closes with a consideration of extra-uterine fetation, which, like the preceding subjects, is treated exhaustively.

In a note the editor calls attention to the fact that the only successful primary laparotomy in cases of ruptured tubal cyst ever performed in this country has been reported during the current year, the operator being Dr. Johnstone, of Kentucky.

Practical and Analytical Chemistry: being a Complete Course in Chemical Analysis. By HENRY TRIMBLE, Ph. G., Professor of Analytical Chemistry in the Philadelphia College of Pharmacy. Second edition. 8vo, pp. 110. Philadelphia: P. Blakiston, Son & Co. 1886.

The most striking features of this work are brevity and perspicuity. It is not easy to see how a text-book could be better suited to the wants of the student, who, having familiarized himself with the theoretical part of his course, desires to master without waste of time the essentials of practical chemistry. The rapid sale of the first edition, necessitating a second in less than the space of one year, gives proof of the favor with which the book has been received.

Manual of Differential Medical Diagnosis. By CONDICT W. CUTLER, M. S., M. D., Physician to the New York Dispensary, etc. Cloth; 16mo, pp. 161. New York: G. P. Putnam's Sons.

While the author of this work adds nothing new to the science of symptomatology, he does good work for the practitioner by grouping in tabular form the essential symptoms of all diseases likely to be encountered in this part of the world.

The diseases are classified according to the most approved nosological scheme, and so arranged that the symptoms of any two maladies requiring differentiation may be read in columns side by side. The labor incident to such an undertaking must have been great indeed, and the author will doubtless find due reward in the thanks of the profession and a large sale for the work.

Diseases of the Blood and Nutrition, and Infectious Diseases: being Volume IV of A Handbook of Practical Medicine. By Dr. HERMANN EICHHORST. Volume XII of Wood's Library, for 1886 (completing the set; price of set, $15). Illustrated. New York: William Wood & Company.

The merits of this great work, which this volume renders complete in English dress, have been set forth in our reviews of the preceding volumes. It need scarcely be said that no more comprehensive or scholarly work in practice has issued from the American press during the year that is passed.

If all the other books comprised in the Library for 1886 were worthless, the Handbook of Practical Medicine would alone indemnify the subscriber of his outlay.

A Reference Hand-book of Medical Sciences; embracing the entire range of Scientific and Practical Medicine and Allied Sciences, by various writers. Illustrated. Edited by ALBERT H. BUCK, M. D. Vol. IV; royal 8vo, pp. 816; leather. New York: William Wood & Co. 1887.

In quality of matter and excellence of illustration the present volume bears critical comparison with those which have gone before it. It is the work of ninety five authors, many of whom stand in the front rank of the army of contemporary medical writers, and discusses comprehensively and learnedly every topic of medical interest embraced under the letters from Ich. to Mil. To attempt an analysis of the volume would be to reproduce, in epitome, a large segment of the circle of the medical sciences, an obviously impracticable task. Suffice it to say that, what the Encyclopedia Britannica is to general knowledge, the Handbook of Medical Sciences bids fair to be with reference to medical lore: the repository of its essential truth and the exponent of its best thought.

The Scientific Rationale of Electro-therapy. C. H. Hughes, M. D., St. Louis. Reprint.

Follicular Amygdalitis. By A. Jacobi, M. D., President of the New York Academy of Medicine. Reprint. 1886.

The May Popular Science Monthly will have a timely article on The Influence of Snow Masses on Climate, from the pen of the eminent Russian meteorologist, Woeikoff.

Tracts on Massage. The Uses of Massage in Medical Practice. Translated from the German of Reibmayr, with notes. By Benjamin Lee, M. D., Philadelphia. 1887.

A Companion to the U. S. Pharmacopeia. Second edition. By Oscar Oldberg, Pharm. D., and Otto A. Wall, M. D., Ph. G. 8vo. pp. 1226; 650 illustrations. New York: William Wood & Co. 1887. Muslin, $5; sheep, $6.

The Bursa Pharyngea, and its Relation to Naso-pharyngeal Diseases. By Ethelbert Carroll Morgan, A. B., M. D., Professor of Laryngology, Medical Department University of Georgetown. Washington, D.C. Reprint. 1887.

The Question of Hemorrhage following Uvulotomy. Report of twenty-three cases of obstinate uvular hemorrhage. Description of a uvular clamp. By Ethelbert Carroll Morgan, A. B., M. D. Reprint. 1886.

A Text-book of Pathological Anatomy and Pathogenesis. By Ernst Ziegler, M. A., M. D. Three parts, complete in one volume. 8vo, pp. 1118; 289 illustrations. New York: William Wood & Co. 1887. Price, extra muslin, $5.50; sheep, $6.50.

The Nursing and Care of the Nervous and Insane. By Charles K. Mills, M. D., Professor of Diseases of the Mind and Nervous System in the Philadelphia Polyclinic and College for Graduates in Medicine, etc. 12mo, pp. 147; cloth. Philadelphia: J. B. Lippincott & Co. 1887. Price, $1.

Dry Eruptions: a Clinical Study of the Irritant Effects of Drugs upon the Skin. By Prince A. Morrow, A. M., M. D., Clinical Professor of Venereal Diseases; Consulting Surgeon to Bellevue Out-door Department, etc. 8vo, pp. 206; one lithograph plate; cloth. New York: William Wood & Co. 1887. Price, $1.75.

Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Considerable interest attached to a meeting of the Metropolitan Branch of the British Medical Association, held in Jermyn Street, its special object being to protest against the exclusion by the College of Physicians and the College of Surgeons of the Society of Apothecaries from the new examining body for medical degrees to be constituted under the amended Medical Act. Dr. Bristow presided. A resolution adopting a protest against the action of the college was moved by Dr. Morton, seconded by Dr. Brunton and supported by Mr. Paramore, and carried by thirty-nine voters against five. The speakers were unanimous in the opinion that the action of which they disapproved would either lead to the extinction of the Apothecaries' Society, and thus to a large extension of illegal medical practice, against which the Apothecaries' Society were the best and almost the only protection; or, what was more likely, indeed almost inevitable, they would obtain from the Privy Council power to complete its own examining board, and thus to confer degrees. Several speakers praised highly the existing examination of the apothecaries' hall and the manner in which the Society had carried out its powers, under the Act of 1815, in restraint of prescribing and visiting chemists and others acting as medical men. A resolution, proposed by Mr. Timothy Holmes, F. R. C. S., was also adopted, claiming for the licentiates of the College of Physicians and Surgeons a proper representative share in their administration, at present only exercised by the Fellows.

To celebrate the Queen's Jubilee a banquet was given at the Hotel Metropole in connection with the Dental Hospital of London. Sir James Paget, F. R. S., presided, and was supported, among others, by Sir Risdon Bennett, Professor Flower, Sir W. MacCormac, Sir Edwin Saunders, and Professor John Wood. The chairman, proposing the toast of the evening, observed that they had not met to do more than indirectly promote the prosperity of the Dental Hospital. One could not but observe how well the hospital prospered, and especially how great was the good it had done, and how great that good seemed to be every year increasing. Looking at the hospital in the mere view of charity, it was hard to estimate exactly the benefit it produced. It was difficult to estimate, for example, the amount of happiness which was given to the forty thousand people who had attended in one year. This total was still increasing, and had increased four thousand within the last month. Few persons had passed through life without knowing the happiness of good dental surgery. Let them imagine forty thousand people suffering without any hope of remedy. That very evening a great part of their enjoyment of a good dinner had been due to good teeth. On the morrow their comfort would be in some way determined by the way in which their teeth had been judiciously employed. Besides, they were aware of the influence of the teeth on the general health. There they stood, the boundary between that which was dead and that which was living, and upon them depended the first and often the principal step of what should be the progress in the change of the dead into the living by process of digestion, and what the value of the living texture should be which had begun to form. Here the amount of good which they did was past measurement. The Dental Hospital was, as far as he knew, the best institution of the kind which was to be found in Europe, if not in the whole world. It was the best fitted in size and extent, the best furnished with apparatus, with chairs such as would in other hospitals be called beds, the best in its arrangements and the most complete in the readiness with which its help was given, and he belived the most complete in the skill of those who exercised themselves in it.

Dr. Thomas Hawksley, Dr. W. Cholmeley, and Messrs Beard, Phibbs, Willis, and Walford have resigned their appointments on the staff of the Infirmary for Consumption, Margaret Street, in consequence of a vote of the Governors, at a recent special general meeting, which enables preferred homeopaths to hold office on the medical staff. In a circular which they have addressed to the executive committee and Governors, these gentlemen stated that "they feel that this new departure is equivalent to an abandonment of the doctrine and practice of established medical science sanctioned by the most learned professors and schools of medicine throughout the world," and they consider that the acceptance of the resolution "would be a betrayal of honor unworthy the members of the noble profession to which they belong."

Professor Romanes lectured before a crowded audience recently on "The Mental Differences between Men and Women." The lecturer pointed out that the average brain of a woman weighed five ounces less than that of a man, and on anatomical grounds they would be prepared to admit the inferiority of woman to man in intellectual power. As the general physical development of the former is less robust than that of the latter, and less able to sustain the fatigue of prolonged brain action, they would probably on physiological grounds also entertain a similar anticipation. In actual fact this inferiority displayed itself in the comparative absence of originality in the higher levels of intellectual work. In powers of acquisition women stood nearer to man, young girls being more acquisitive than boys of the same age, but as soon as the brain reached a stage of full development there was a greater power of amassing knowledge on the part of the man. What was regarded as a highly cultured woman was one who had read largely but superficially. The disabilities under which women had lived were not sufficient to explain this general dearth among them of the products of creative genius. On the other hand, women had gained refinement of the senses and rapidity of perception. Houdin said he had known ladies who saw another lady pass by quickly in a carriage find time to analyze her costume, and say if the lace she wore was real or only machine made. The lecturer tried some experiments in this direction by placing a paragraph in a newspaper before a certain number of men and women, requiring them to read it in a given time and to write down their impressions of it. He found the palm was usually carried off by the ladies. The inferiority of which be spoke was due in part to the fact that women had not had the same education as men. Woman was still regarded by public opinion as a psychological plant of tender growth, which needs to be protected from the ruder blasts of social life in the conservatories of civilization. In this judgment he concurred. There was a small section of the public which argued that the conspicuous absence of women in the field of work was due to the artificial restraints placed upon them. If, they say, women were allowed to compete with men, then women would prove themselves the intellectual compeers of men. The answer was painfully obvious. In many deparments of intellectual work the field had been equally open to both. In conclusion the lecturer referred to the women's movement, which was spreading throughout the country, and remarked that lecturers at the end of a scientific discourse would no longer be asked whether the cerebellum was inside or outside the skull.

A deputation of anti-viviscectionists have waited upon the President of the College of Surgeons, and expressed their fear that the establishment of an institution for physiological research, would cause experiments on living animals to be carried on within its walls.

London, March, 1887.

Translations.

Cataract Produced by Sound.—(Von Stein.) Cataract has hitherto been produced experimentally:

1. By traumatism.
2. By alteration of the physical condition, by means of low and high temperature.
3. By the local action of reagents on the lens.
4. By infusion of chemical substances into the blood circulation.

In addition to these, Von Stein has observed the production of cataract from irritation of the nerves by means of the tuning-fork. A porpoise was shut up in a cage, to which was fastened a tuning-fork operated by electricity. At first the animal became restless and cried out at the irritation. In the course of three or four hours there was marked dilatation of the pupil, and the iris responded slowly to light. Twelve hours afterward, a star-shaped figure was observed on the posterior surface, the rays of which resembled bird-feathers, especially toward the equator. There was a general discoloration of the lens. These appearances lasted about twenty-four hours. Gradually the central part became pale, finally to disappear entirely. Beneath this, on the posterior surface of the lens, proceeding from the equator, were three grayish-white triangular spots, whose base corresponded with the periphery. These did not extend to the center. In four or five days, by leaving off the action of the tuning-fork, all these appearances subsided.—*Wien. Med. Wochenschrift.*

The Study of Glaucoma.—The vascular changes in acute progressive and chronic glaucoma are for the most part the result of bodily ailments, whose influence must be exerted on the choroid and retina. In these cases it is of the nature of intraocular stasis. Another class of cases is produced by mydriatics. Atropine, homatropin, cocaine, in comparatively small doses but in concentrated solution, can in old people produce glaucoma that is certainly and permanently cured by iserine. The cause of this action, however, is not the displacement of the iris to the periphery, but a paralysis and dilatation of the vessels whereby a showing of the blood current is effected, which under favoring conditions, either local or general, leads to troublesome effusions.

Primary acute glaucoma is the expression of a high degree of venous stasis in the anterior section of the choroid with consecutive acute edema.

Simple primary glaucoma is the expression of a gradually progressive retardation of the choroidal circulation with the effusion of a homogeneous fluid into the vitreous chamber.

Senile changes of the vessels and diminished energy of the heart are the most common causes. In women the climateric also has its influence.—*Ibid.*

The Treatment of Urethral Stricture. Prof. Antal, of Buda-Pesth, gives the following conclusions as regards the different methods of treating stricture of the urethra, drawn from statistics of one hundred and two cases coming under his care within the last three years at the Rechars Hospital in Buda-Pesth.

He is convinced that only in the smallest number of strictures, and those in the stage of inflammation, is cured without relapse attainable.

As regards selection of the different methods of treatment, he considers the following division of stricture to be necessary:

1. Gonorrheal strictures, with the following stages: Stage of inflammation, stage of connective tissue, stage of callus, and stage of shrinking.
2. Traumatic stricture.
3. Strictures following ulcers.

In the stage of inflammation, Dr. Antal recommends gradual dilatation and pressure with the steel sound, after the completion of the irritation, cauterization with a two to five per cent of nitrate of silver or sulphate of copper.

In the stage of areolar tissue accumulation, he recommends temporary or permanent dilatation. After the dilatation has been completed, if the mechanical inflammation has disappeared, he examines the stricture thoroughly by means of the endoscope in order to ascertain whether or not there is, at the site of the stricture or in the immediate neighborhood, an inflammatory area of gonorrheal origin, and which will inevitably lead to a speedy relapse.

In callous strictures, in which Thompson and Guyon recommend internal urethrotomy, he resorts to external urethrotomy when he is unable to produce absorption of the callus by means of lukewarm baths and massage, or when false passages, fistulous openings, or urinous infiltration are present.

In order to judge of the working of the different methods of operation, and to decide as to their worth, endoscopic photographs were taken after the completion of the different modes of treatment. Photographs have elsewhere in the literature of the subject been published only by Grünfeld after gradual dilatation, and in one case of external urethrotomy.

The photographs were taken in cases which admitted of the introduction of an endoscope numbering from twenty-three to twenty-six.

The thinning of the stricture band, due to gradual dilatation, observed by Dittel, is not to be denied, as also that this has an influence in promoting the absorption of the stricture.

After dilatation the mucous membrane never, except in strictures in the stage of inflammation, regains its normal color and structure. Furthermore, photographs taken some weeks after the completion of the dilatation show that this does not occur in the connective tissue stage, but in these cases stripes and flecks of connective tissue remain behind.

After external urethrotomy a more or less wide cicatrix is interposed between the border of the cut, which contributes to the permanent enlargement of the caliber of the urethra. Guyon expects this increased breadth of the line of the cut from the elastic tissues of the walls of the urethra, and therefore deems it unnecessary to employ large catheters after the operation or to dilate subsequently.

Photographs taken after internal urethrotomy show that in the inflammatory stage the longitudinal wounds made in the operation actually extend in breadth, and in this way the view of Guyon is confirmed, but after complete cicatrization the cicatrix becomes linear. In the cellular tissue and the callous stages, where it is thought that urethrotomy is directly indicated, the longitudinal cut does not take on an oblique form after the use of the permanent thick catheter, but, as the photographs show, heals linear. The only result of internal urethrotomy is that a large instrument can easily be passed through the stricture at the first sitting, and this really effects the dilatation.

As regards forcible dilatation the same position is reached that was previously held by Stilling, that its necessary result is to lacerate comparatively healthy parts of the stricture.

The experiments of Dr. Antal prove that the ruptures in fact take place in the healthy parts of the stricture, but these rents heal linear after the application of the permanent catheter. Forcible dilatation, as such, therefore contributes but little to the permanent dilatation of the strictured parts. The dilatation is completed either by the employment of the permanent catheter or by later dilatation.

Forcible dilatation has furthermore a weighty after-effect, namely, it crushes the healthy parts of the stricture, and as a consequence traumatic stricture may occur. In external urethrotomy it is believed that thereby a broad scar is interposed between the margins of the wound and this belief is confirmed by photographs taken after complete healing. Permanent dilatation was employed in sixty cases, temporary in three, caustics in six, internal urethrotomy in six, external urethrotomy in twenty-six, and forcible dilatation in three cases.

The mortality, exclusive of three cases moribund from septicemia and uremia when brought in, was in the hundred and two cases only one. *Ibid.*

THE TREATMENT OF MORPHINOMANIA.—M. B. Ball gives the following wise counsel in regard to the treatment of morphinomania:

1. Place the patient in a hospital where the surveilance of the physician, which is indispensable, may be exercised every moment.

2. Suppress more or less completely the use of the morphine.

3. Stimulate the action of the heart at the opportune moment by the injection of sparteine, to which may be added an injection of morphine in case the condition becomes threatening.—*Journal de Med. de Paris.*

TREATMENT OF FACIAL NEURALGIA.—(Dr. Coninck.) Apply a one-per-cent solution of muriate of cocaine to the floor of the auditory canal by means of a small pencil, a Compte gouttes, or any other way. The pain, however intense it may be, disappears immediately. If the pain after a while returns repeat the application.—*Ibid.*

THE HYGIENE OF CROWDED ROOMS IN CHOLERA.—Dr. José A. de los Rios gives the following statistics bearing upon the mortality of cholera in relation to the number of persons occupying one room when attacked by it:

Of ten thousand persons attacked by cholera, and living one person to the room, sixty eight died.

Of ten thousand persons attacked by cholera, from one to two to the room, one hundred and thirty-one died.

Of ten thousand persons attacked by cholera, living two to four to the room, two hundred and nineteen died.

Of ten thousand persons attacked by cholera, living four or more to the room, three hundred and twenty-seven died.—*La Crónica Médica.*

THE DIET OF CHILDBED.—(D. Rubenstroth.) Every practicing physician can easily verify that in regard to the diet of lying-in women there still exists an incredible number of prejudices, errors, and fallacies, and that not altogether with the laity alone, but also among midwives and even by a large number of physicians. This is easily realized when it is considered that among the laity the prejudice is widespread against the lying-in woman taking any thing from the first to the ninth day, except water and althea-flower tea.

Experience teaches that among the common people the lessons and examples endure for a long time and with great tenacity. When new advances and more thorough knowledge have already for a long time shown that old teachings are wrong and worthy to be rejected, it often happens that in practice we have not so much to fight the folly of the common people as the superannuated and erroneous examples of our medical predecessors. But that, among the very persons who are chosen to give public attention to sanitary affairs, still many erroneous and effete notions prevail is a pitiable fact, but one that can not be denied.

The withholding of a choice and model diet from women in childbed is directly injurious both to mothers and children, on account of the deficiency of nourishment connected with it. Kleinwächter, by weighing and measuring, has shown that by the use of a good and rich fare on the part of the mother, not only does she recover more rapidly from the debilitating influences of confinement, but that children thrive much better and increase much more rapidly in weight. *A priori* it is not easy to conceive how a woman whose strength has been so extraordinarily taxed by childbirth and lactation could find herself the better by being robbed of her accustomed nourishment.

It is quite obvious that proper nutrition of the mother must result in good to the child; and Dr. R. is convinced that many a mother found unable to nurse her child on account of want of milk would not be so if from the first day of confinement she had been richly and strongly nourished. As a consequence, in so many instances artificial instead of natural nursing has to be resorted to, with the extremely fatal result that is so well and generally known.

Barker answers the question, what nourishment the lying-in woman should have in a very clear and simple way: "A lying-in woman should have all the good, nutritious food that her appetite demands and her digestion can control and assimilate." Therefore, it is not a matter of so many days, but of the condition of the appetite and the digestion. If both are found in normal condition, she may have meat and easily digested preparations; in this way they will certainly get along better than if allowed to go hungry.

If a good and rational nourishment is a necessity with every lying-in woman, it is an imperative matter when the confinement has been accompanied with great loss of blood or other exhaustive influence. Dr. Rubenstroth has seen women who from loss of blood during the third stage of labor had become so weak that they were unable to raise the head without fainting, and who yet by the use of roast meats and other nutritious diet were able to be up at the accustomed time, fresh and strong; while by the spare diet so commonly supplied they could only have returned to their household duties in the course of months.

Furthermore, if the return of strength is not favored, and pregnancies follow in rapid succession, a condition of anemia becomes chronic and may last through the whole of after-life.

As soon, however, as lying-in women become convinced of the good effects of abundant nourishment they become enthusiastic partisans of the *régime,* and then often do *too much* of a good thing. A gastric catarrh produced in this way can quite certainly cause much harm and give the physician a great deal of care.—*Memorabilien.*

THE STIMULANT ACTION OF ATROPINE.—Professor Binz earnestly controverts the contention of Lenhartz at the congress of German physicians, that atropine can not be regarded as an antidote against morphine, and insists on his own results, reached through numerous experiments, as correct. "One may perceive," says Binz, "in these experiments the possibility of so ordering the circumstances of experiments as to develop a direct antagonism between morphine and atropine, embracing the principal vital functions of animal life. It harmonizes with the experience of many physicians had at the bedside."

The statistics presented by Lenhartz are not demonstrative, because the mild cases afford no indication for atropine, and are not deserving of mention in that connection. The reason that Lenhartz in his cases saw no good effect from atropine was that he employed it in too small doses; the maximum dose must be boldly overstepped, and as much as $\frac{1}{75}$ or more be given. If Lenhartz. in experiments on animals, found atropine inefficient, it must be due to the method of conducting them.

Professor Binz has particularly tested the influence of atropine upon the respiration, and found it greatly exalted. In a case where the respiration was reduced by morphine to less than one eighth of the normal, it rose at once under the influence of atropine nearly twenty-five per cent. There was also a decided arrest of the reflex excitability.—*Schmidt's Jahrbücher.*

COCAINE IN DERMATOLOGY AND SYPHILIS.[*] (Dr. Sigmund Lustgarten, Professor Kaposi's clinic, *Wiener Med. Wochen.*, March 19, 1887. Translated by I. N. Bloom, A.B., M.D.) Ever since Carl Koller first published his experiments on the anesthetic influence of cocaine, this drug has been used experimentally in various diseases of the skin. A new departure in its use resulted when Lauderer and Woelfler published their experiments on its value when injected subcutaneously.

While the drug has not found that extensive application in dermatology that has marked its use in other specialties, still it has been found to be of great value in many respects. As regards its application to the healthy epidermis, we find the same incapacity for absorption, either as a solution or as an unguent, that the horny layer exhibits toward other drugs. No effect on the skin can be obtained by application to the healthy integument. This is greatly to be regretted, as its effective application would find frequent use in such itching diseases as pruritus cutaneous, both senile and other forms, chronic urticaria, certain cases of lichen ruber, etc.

On the other hand, if the horny layer of the skin, either through maceration or other cause, is decidedly thinned or wanting altogether, so that it is possible for the cocaine application to to reach the nerve apparatus of the skin, its complete physiological effect may be obtained.

There are three indications for its use in this category. First, cocaine in eczema. Of course the chronic, hypertrophied form is not meant, but the acute and subacute forms, with numerous vesical formations and frequent exacerbations. For such forms we have derived great benefit from a two-per cent solution, applied with a brush once or twice every twenty-four hours, without otherwise modifying the treatment. In such cases the anesthetic influence is not equally distributed, but is felt only in those places which are deprived of their epidermis. A decided diminution of the itching has been noted.

Cocaine plays a very important *rôle* in the treatment of eczema of the male and female genitals and around the anus. The explanation of its absorption is found in the constant maceration and thinning of the horny layer in these regions, especially so in eczema.

The itching here is always most intense, and causes a vicious circulation, which in most cases renders a cure exceedingly difficult. Very often pruritus is the indirect cause of eczema in this locality, and an anti-eczema cure alone fails to cure it. Troubles of this nature are of no slight importance. They prevent sleep, or disturb it greatly. The patients lose strength; and inasmuch as paroxysms of itching and sexual excitement, just as other chronic genital diseases, are likely to cause deep psychical depression (reflex), true psychoses not infrequently result. In such cases, in conjunction with tepid sitz baths and saponaceous washings, cocaine yields better results than all other methods. Oleate of cocaine, 0.40–1.0, lanolin, 18.0, ol. olivarum, 2.0, is a good way to use it—applied twice a day, beginning with the two-per-cent ointment, and increasing, if necessary, to five per cent. A sufficiently large sized piece should be rubbed over the affected part for a few minutes, and then powdered over with some indifferent dusting powder. In pruritus ani, suppositories with five-per-cent cocaine were used. In pruritus of the female genitals the ointment yields the best results. The success following its use is very satisfactory, especially in those cases where pruritus is the prime cause. In chronic eczema the success is not always so great. The diminution of the eczematous inflammation is very likely in part due to the contraction of the vascular network caused by the cocaine.

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[*] Read before the Louisville Medical Society, April 28, 1887.

Second. Ointments (lard or lanolin) with one-per-cent oleate of cocaine are to be recommended as applications to painful excoriations or loss of substance of all natures, especially after cauterizations with arsenic or pyrogallic acid, or in herpes zoster or gangrenosus. Such applications answer the purpose much better than belladonna or opium ointments.

Third. When a two-per-cent solution of cocaine is applied several times with a brush to granulation tissue which it may be necessary to stimulate, they grow paler after a moment or two. The crayon of nitrate of silver or a strong solution of the same may then be applied without causing any pain. This application is of special service when it is necessary to apply such caustics to large surfaces, as after large scalds, burns, etc.

Although not strictly in place, it may be worth while to mention that in cases of painful erections, chordee with acute gonorrhea, the injection of several drops of a two-per-cent solution of cocaine into the urethra gives great relief. The same may be said of the suppositories in spasmodic disease of the posterior urethra, ischuria, strangury, etc.

The subcutaneous injections of cocaine were made upon fifty cases; as a rule, one Pravaz's syringe of the following solution: Cocaine muriat., 0.50, sol. acidi carbol. (two per cent) 10.0. This was injected, a few drops each in several places either into the reticular tissue of the cutis or subcutaneously into the connective tissue. The addition of two-per-cent carbolic acid prevents the fungous formation which is so often noticed where a watery solution is kept for some time. The injections were used in the operations of circumcision, extirpation of epitheliomata of the lips, atheromata, a lipoma as large as an apple, in extirpating pieces of skin for microscopical examination, incision of buboes, and lastly, in a series of lupus cases. In circumcision the injections were made between the layers of the prepuce at three or four different points. In epitheliomata, at the three edges of the wedge-shaped piece to be excised. In general, each individual case must govern the site and depth of the injection, the general rule being that twenty centigrams of a five-per-cent solution anesthetized an area whose diameter is about two centimeters.

Freedom from pain is complete when we can operate on healthy tissue. In certain cases of lupus, as well as in buboes, where it is necessary to eradicate diseased glands, its effects were not so satisfactory. This was especially the case in lupus infiltrations which were soft, mushy, and ulcerated, and the skin was undermined. The explanation is that the injection, made from the edge into the fungous granulations, is not distributed equally into the surrounding tissue, but, following the paths undermined by the disease, finds its way to the surface near the point of injection. For this reason it is better to inject at some distance (one centimeter) from the edge.

In general the process of healing is not disturbed by the cocaine; still it may happen, as it has with us, that if the hemorrhage is not carefully stopped, it may begin again in a few hours after the operation, when the vascular spasm caused by the cocaine has passed off.

We have found another use for cocaine—its use with the injection subcutaneously, painlessly, of mercury and arsenic. Of the former it is especially useful when once a week calomel and tannate of mercury are used. Half a gram of a five-per-cent solution is sufficient to make analgesia complete. After the cocaine injection is made the canula is left *in situ*, the syringe is filled with the mercurial suspension and injected in the same place. Larger quantities of cocaine — as, for instance, five centigrams daily — as Mandelstamm recommends, with bicyanide-of-mercury injection, I hold to be dangerous, in view of the severe cases of chronic cocaine relaxation which I have seen, which led to the formation of the cocaine habit and mania similar to the delirium tremens of drunkards.

We only use cocaine with arsenic injections, when the latter are given as strong as a two-per-cent sodii arsenitis solution. In such cases twenty centigrams of a five-per-cent solution of cocaine followed as before by the arsenic suffices.

If the cocaine is added to the arsenic or mercury before injection, chemical union takes place which destroys the anesthetic properties of the cocaine, and the injections are not painless.

Although the normal dose of five centigrams injected subcutaneously is not generally followed by constitutional effects, nevertheless a few cases carefully observed show that such may be the case. One patient, a heavy drinker, had a severe epileptiform convulsion, lasting several minutes, after the cocaine injection. After the convulsion recovery was complete; no others followed, and the patient declared he had never previously suffered from convulsion and loss of consciousness. Another patient, also a heavy drinker, had tremors in all extremities after the usual injection. These maintained their severity for twenty four hours, and disappeared gradually upon the following day, leaving the patient perfectly well. The third case was a girl, twenty years old, with lupus of the face. Regularly after each injection she felt ill, complained of palpitation and loss of appetite, and occasionally vomited.

DR. MURRELL, in the preface to the fifth edition of his "What to do in Cases of Poisoning," expresses himself in the following amusing manner: "This work has reached a fifth edition, but it is not my fault, and I disclaim all responsibility in the matter. I am told that it has been the means of saving many lives, and I have no doubt this is true, for I hear that a gentleman who thought of poisoning himself changed his mind on reading the direction for treatment."

Abstracts and Selections.

RATIONAL THERAPEUTICS OF CHRONIC CONSTIPATION.—(John Kent Spender, M. D.) In the days of Dr. Mason Good the Greek word *coprostasis* was used to denote costiveness or retention of feces in the bowel. It was thought probable, perhaps, that the vulgar laity would not venture to meddle with a complaint which had such a fearful and learned word to express it. In Ciceronian Latin, however, *constipo* means to crowd or press upon; and out of it were framed participial substantives easier to pronounce and remember, and of equal figurative force. But the scholastic genius of Good rose above such simplicities, and so he called that state *constipation* in which the feces are "congestive and voluminous," and the other state *obstipation* in which the feces are "hard and slender, with a weakly temperament and a sedentary habit." The purer Latinity eventually won the day. The term *constipation* cast out every other, and came to signify that condition of the alimentary canal in which the natural waste material is crowded and impeded in its evacuation.

But when we have got our signifying name it does not follow that we have a firm grasp of the thing signified. Writers vary, practitioners differ, and those important persons, the patients emphatically disagree on the point, what does constipation mean? Students who have delved into the home and foreign medical literature of the early part of this century bring back wonderful stories. It is unseemly to gratify the love of marvel merely as such, but there is no harm in disinterring from an old number of the London Medical Gazette a case related by Mr. Staniland. "A young female never had more than one action of the bowels every two months during a period of five years, and she appeared otherwise in good health all the time." Before this and similar facts duly authenticated it is almost absurd to repeat the opinion of Cullen, who considered the retention of alvine contents beyond twenty-four hours without the desire of evacuation as an approach to a morbid state. In reality, it is difficult to draw a scientific line between retention and catarrhal flux of the bowel. The doctrine of intestinal excretion is entirely relative. The disturbing influences of sex, age, and climate are always present, and ought to be reckoned and weighed. Heberden tried to throw a humorous glamour over grave clinical themes, and says that he "knew a person who all his life had but one motion a month; he must have had a great deal to carry about with him! And he knew another person who had twelve motions a day for thirty years; that must have been equally troublesome; it was perpetual motion!"

Let us open our subject by a contrast. Pulse and breathing can not deviate much from the normal standard without pain and peril. If the heart beat two hundred times in the minute, and the respirations exceed sixty, we should know that this state of things must bring death soon. The continued *evenness* of these functions (within a very narrow limit) is a cardinal vital fact. Otherwise the organs themselves would perish from overusing, and the living mechanism of the whole body would be confused and stopped. But food digestion can be thrown out of order, and the carriage of wear and waste through the intestinal conduit can be delayed, and even blocked, without serious or even inconvenient consequences. See, again, what happens when the exit of carbonic-acid gas from the lungs is checked for more than a few seconds, or when the passage of urine is prevented for only a few hours. The law of the matter seems to be that the more subtle the excreted matter, the greater the hurt if it be shut up within the body. But it is wisely ordered that when an excretion is for the most part solid, and liable to the physical accidents of weight and pressure and stoppage, a wider range of possible contingency is permitted without lasting harm. Such is the dynamic standpoint for the study of chronic constipation of the bowels. It is a study essentially clinical, and declines to be governed by severe rules borrowed from physical analogies. Within the region of the abdomen personal physiology is as separate and marked as personal character. Wherefore, at the bedside or in the consulting-room, the problems of constipation are mainly these: How far does the symptom injure the patient by its quality of sheer ponderable grossness? And how far does it injure him by its toxical effects on blood and nerve?

For the purposes which this paper has in view, we assume that in any given case all voluntary movements subsidiary to defecation are efficiently performed. We assure ourselves of the absence of malign tumor, of stricture of the bowel as a relic of past peritonitis, and of any obstructive difficulty in the rectum and about the anus. These disturbing elements being excluded, constipation is almost certainly due to one or more of three causes: (*a*) imperfect glandular secretion; (*b*) slow peristaltic motion; (*c*) a sluggish habit of sympathetic nerves. It is wrong to stigmatize by the name of disorder what is part of a patient's regular vital plan. If he can bear an infrequent emptying of the bowel without conscious injury or discomfort, and if any interference does him clearly more harm than good, it is our medical business to do nothing. But when a disability suddenly arises, although every thing has been steady before, or when a chronic torpor suddenly becomes a danger, ought we not then to step in? There can not be two answers to this question. And what should be our aim? I push aside all temporary expedients, all drastic doses and exosmotic drains, which merely empty the bowels *pro hâc vice* in the fashion of flooding out an unclean sewer. It may be necessary to do this once as a preliminary point, but what next? We ought to ask ourselves what will happen a week hence, a month, a year; and the sufferer wants to know whether the same drugging is to go on eternally, always satisfying the present need and no more? Surely the object of philosophic medicine is to enable the patient to live without medicine—to realize such a state of health that the medicine (*i. e.* the *medium* of health) is no longer required. A thing which is labelled *To be taken forever* does not soar above the science of the quack and the herbalist. It is a high and useful prerogative to free a man from the bondage of perpetual physic, and to make him feel that his animal economy, when put into proper order, is equal to the work of keeping him alive and comfortable without physic at all.

Imagine, now, that the "family doctor" is seeking counsel from his literary brethren on the treatment of one of the commonest domestic maladies, which is sure to meet and challenge him some day. There are three groups of documents which he will consult: (*a*) Standard books on therapeutics and on the practice of medicine; (*b*) monographs in the medical periodicals; (*c*) charitable appeals for help in the minor correspondence of the weekly journals, cries for more knowledge by young men in temporary despair, or by others who have worked through the dry routine of text-books with little or no success. These cries and appeals often elicit valuable information, and sometimes oral traditions which have never been published before. Of these replies notes should be made by all who wish to be provided for the unseen problems and puzzles of medical life.

Next, what are we to do with our literary stores? We will pick out a good and fairly strong specimen of the group just mentioned, a book once held in high and deserved favor as a safe and practical guide. In the edition published in 1875 there is a short chapter dealing (rather inadequately) with the theory of constipation of the bowels; and the paragraph referring to treatment begins with the sensible postulate that the "grand aim of the practitioner must be to do away with the use of purgative drugs." This sounds hopeful but what follows? An enumeration of thirty-nine drugs, or combinations of drugs, possessing distinct and definite virtues, capable of being modified by various use and measure, and all to be held in due honor and memory according to their turn! When the long procession ends, it is supposed to cross the stage again; the remedial formula stretches *ad infinitum*, and the dogma of perpetual medicine is pontificially proclaimed.

And concerning some new and lenient medicines, such as the compound licorice powder and the *cascara sagrada*, it can not be pretended that they have a *curative* agency in any exact sense of the word. Unobjectionable they may be in taste and physiological effect; dressed and embellished as elixirs or cordials, they may have a momentary claim upon the attention of apothecary and nurse, but they are not really superior to their predecessors and fellows in the same line. Nor can much be said of such little stratagems as copious draughts of hot and cold water, with or without glycerine.

Then the solemn diet-page opens. The catalogue of dreary and negative precepts ends in a minatory clause of the fearful consequences of disobedience; and of course this makes the pleasure of eating forbidden fruit the more alluring. It is a sufficient answer to this solicitude that in a large number of cases the most rigorous scheme of food is of no benefit whatever. People constantly affirm that it is immaterial whether they eat one thing or do not eat another, and that no dietetics are therapeutical unless supported by the animating force of right medicines administered in the right way. Then, and then only, shall we receive contributory aid from this and other quarters, while electricity, massage, and baths will then have their place as true and welcome auxiliars.

Without speaking in tones of terror, it may be proper to warn a reluctant patient that to carry about an excessive load in the "bureau of the interior" is always unnecessary and often dangerous. It is walking to the edge of a precipice which is invisible, and with no beacon-lights to show that it is even near.

All the functions are presumed to act in international comity; the so-called cavities of the body are merely semi-detached anatomical houses, for they are inseparably bound together by a league of physiological kinship. Now just for a moment we will not look at the pathological disturbance caused by the burden of waste which has imperfect outlet, but we will cast a glance at the *anatomy* of chronic constipation, and what does this say? Clearly that acute obstruction may come like a lightning-stroke, and bring a person into the gravest peril. Feathers light as air turn the scale. Going from one place to another, changes of diet such as one has to endure when traveling for business or pleasure, a little mental worry, or the hurry of the world generally; then comes shock and collapse, and the mischief is done. How can it be otherwise? Coil upon coil of delicate tubing are packed inside a cavern which fortunately has in front a soft and yielding wall; but coils have curves and even angles, every one of which offers a slight element of resistance, and the sum of all is a simple problem of geometric ratio. The "slow fecal progress" through the large bowel not only dilates its channel and injures the elasticity of its walls, but provokes the small bowel to make more and more effort. The useless effort tires and paralyzes, dull solid masses block the road, and a simple malady may become a mortal disease because the physician has not used common alertness and skill in his medical business.

Now to treat an erring function is one thing, to cure it is quite another. Our ambition may be pitched at such a low level that we are satisfied with the scientific muddle of always treating and never curing; a mode or fashion which Sir Thomas Watson touched with gentle humor some years ago when he said, "We try this, and, not succeeding, we try that; and, baffled again, we try something else." Are we to be content with such clumsy workmanship that our patients, weary with everlasting failures, may at length quote an eminent and witty physiologist (Hoffman), who warned his friends to "avoid drugs and doctors"? But without further preface we will assume that our therapeutic aim is rational and far-reaching, how are we to fulfill this aim and coax rebellious organs to do their duty in a loyal way?

Very often has Christison's statement been quoted that the cathartic property of aloes is much increased by combining it with sulphate of iron; but Dr. Neligan had previously pointed out that "tonics are not ordered in combination with cathartics so frequently as they ought to be." The eclectic power of sulphate of iron is remarkable, for it quickens the specific action of opposite kinds of medicines It accentuates the force of purgatives and increases the astringency of astringents. There is no better combination, for example, than sulphate of iron and Dover's powder for restraining the catarrhal flux which issues from tuberculous ulceration of the bowels. United pharmaceutically with aloes, iron economizes it, and confers upon it the quality of curative permanence. About 1852 or 1853 my father, not knowing what Christison had just written, told me as a student that he had found minute doses of Socotrine aloes act with remarkable vigor when combined with sulphate of iron, which he supposed would have had quite the contrary effect. We worked at the subject in a desultory way until 1860 or 1861, but after his retirement I took up the matter more systematically, and published the results of my experience (dealing with between two hundred and three hundred cases) in a paper contributed to the Medical Times and Gazette for February 19, 1870. Since then the evidence accumulating from the records of private practice has been so almost uniformly favorable that, without the pedantic tedium of reciting any more cases, I venture again to describe the plan which has been so successful in my hands, and to recommend it earnestly to my brethren.

As a bare "item" in the management of chronic constipation of the bowels, aloes and iron are honorably mentioned in several good books published lately; but there is no exposition of the fact that success depends upon the manner in which these medicines are prescribed and taken. The discipline should be not of the whip or the spur, but a soothing appeal to the dormant resources of nature. Let a pill be prepared containing from a quarter to half a grain of the Socotrine extract of aloes, with a grain or a grain and a half of sulphate of iron. People sometimes, without meaning to do so, exaggerate their difficulties, but this must not tempt us to order more than a minimum dose; and the cases are not a few for which one sixth or one eighth of a grain of extract of aloes is quite sufficient. With these indispensable constituents, the aperient and the tonic, a little extract of belladonna, say one eighth of a grain, may be blended. Doubtless it is often helpful, but more often it disturbs vision and insalivation so uncomfortably that it has to be soon withdrawn. We begin, then, by desiring an adult patient to take a pill composed as above three times a day, immediately after the principal meals. He is cautioned that at first there will be probably no apparent effect, and that two or even three days may pass before any medicinal evacuation of the bowels takes place, difficult and perhaps painful. But within the next forty-eight hours there will be most likely an evacuation of the bowels once or possibly twice in the day, but *nothing approaching to purgation ought ever to be permitted*, and therefore the patient must be instructed that when the first loose motion occurs a pill must be withheld, and that he should take only one in the morning and one in the evening. For a time he continues his morning and evening pill, and is pleased to discover that so slender a medicament has such a decided effect. At the end of another interval of two or three weeks, varying with the original difficulty of the case, the patient is compelled by the same reason as before to omit another pill, and he finds that the same result is brought about by one pill daily as was originally produced by three pills. Within another month the allowance of medicine may be reduced to a pill twice or three times in a week, and finally the whole scheme of medical treatment becomes merely preventive in its design and scope, and he takes a pill occasionally for the sake of maintaining health and keeping off old troubles.

This medical scheme, simple as it reads, requires intelligence and memory to carry out. Stupid and unpunctual people can not be trusted with so much responsibility. No amount of penitence undoes the harm of forgetting the right pill at the right time. Two pills must never be taken together to atone for such forgetfulness; so many steps have to be retraced, and the whole plan may need to be begun again. The therapeutic work of every day requires a separate exercise of judgment, and must be framed accordingly. The principle of comparatively small and frequent doses receives an appropriate illustration, and is shown to have curative power. There must be quiet perseverance, no haste, and absolute confidence in the efficacy of the method.

The following points must have careful attention. If there should be too much action of the bowels at first from inadvertently taking rather too many pills, the medicine must not be withheld for more than fifteen or eighteen hours, or a comparative constipation will immediately return. But the progress toward health is scarcely ever free from occasional interruptions Every thing goes well, perhaps, up to a certain point, then from a trifling cause there happens again an obstinate stoppage, even though the one daily pill is immediately multiplied by three. Nobody should be discouraged, least of all the doctor. Continue the medicine, order a more liquid diet, and in a day or two functional regularity will be restored. It is an excellent device for the patient to be provided with pills of different strength, so that in moments of doubt a selection may be made according to the emergency. Lastly, there are sufferers for whom, at the beginning of treatment, no preparation of aloes is of sufficient strength, and a combination of iron and colocynth is the only way out of the wood. But aloes should replace the colocynth as soon as possible; and sometimes the first and best step is to give an adequate dose of a saline purgative like Rubinat water, as clearing the road for future operations.

When there is real objection to the prescription of pills, the wisest way is to add the decoctum aloes compositum to the mistura ferri composita, the doses being determined by an application of the same rules. There is wider room for auxiliary drugs like glycerine and sesqui carbonate of ammonium; but the dandy pharmacy of the day despises nasty physic, however disguised, and teaches the laity that upon no account are they to be vexed with it. Cod-liver oil is nearly always useful as a help to other things. I have been able to trace a large number of cases in private practice, so as to judge of the comparative success of my plan. These cases may be arranged in four groups, somewhat as follows: (*a*) The first group, about twenty per cent of the whole, comprises all patients who are absolutely cured, and take no medicine at all. (*b*) About forty per cent of my cases are so nearly cured that only a precautionary pill is taken every few weeks or months. (*c*) In another group relapses now and then occur, chiefly during the winter, requiring a course of the pills for a few days at a time, with an almost immediately good result. This class includes about thirty per cent. (*d*) In a small residue, say ten per cent, failure has so far to be acknowledged that, although the aloes and iron pill or mixture acts better than any thing else, it has to be taken more or less "forever." Many people find great help from taking every day the Bath thermal waters, fresh from the spring.

Wonderfully does the intellectual and physical vigor improve under this renovating and purifying regimen, especially if united with the best rules of hygienic practice. I attribute this less to the hematinic properties of the iron than to the removal of the incessant dread and worry of being obliged to take powerful medicines. Justly do people grudge the time and trouble devoted to a single function which has gone wrong, and which demands so much fidgety energy to put right. But when the right comes, behold the sunshine on the once haggard, nervous face, and the elastic beat of the once weary step! Note, too, that the obstinate amenorrhea which is often associated with constipation is gradually cured by the same means; and if pregnancy exists, the prospects of child bearing become more encouraging if the treatment be carried out with suitable watchfulness.

The high traditions of medicine proclaim that the true physician is most happy when his patients are most healthy; but this doctrine sounds unpractical and purely academic to the vulgar mind. Here, for instance, is a therapeutic plan which rescues an army of sufferers from the tyranny of the drug-merchant and from the *cultus* of the pharmacopeia. "It is impossible," cries the worshiper of Mammon, "for by this craft the doctor lives." But sanitary engineering and all preventive skill which makes our homes sweet and comfortable tend to check disease, and to impoverish those who dare to bring down medical art to the level of a trade. In the early part of the last century (1717) Lady Mary Wortley Montagu wrote from Adrianople that she was afraid to tell English medical men about the "ingrafting of small-pox," because the distemper, taken in the ordinary way, was such a "considerable branch of their revenue." In exactly the same spirit the bad prophets who oppose vaccination to-day allege that doctors support vaccination because it is a source of large profits to them. Do not answer these base and mean prophesyings; pass them by on the other side, and let us imitate the lofty spirit of Chaucer's healing ministrant, who—

> "Kepte his patient wonderly well,
> In houres by his magik naturel."

Indications for Using Hydrochloric Acid in Gastric Diseases.—The following is the substance of an article contributed to the *Deutsche Med. Wochensch.*, by Prof. Franz Riegel:

Until very recently it was commonly thought that in most cases of chronic dyspepsia the secretion of juices by the stomach was diminished. Accordingly, hydrochloric acid was nearly always prescribed, either with or without pepsine, without its being in each case proved that there was actually a diminution of secretion. The result was that only in a few cases did rapid improvement take place, while in most cases there was no result from the use of the acid, and under certain conditions there followed even exacerbation of the dyspeptic symptoms. The explanation is easy. The fact is, that instead of the secretion (particularly of hydrochloric acid) being reduced in the majority of cases of chronic dyspepsia, there is, on the contrary, in a considerable number of cases actual increase of such secretion.

The clinical appearance of hypersecretion in the more pronounced and chronic cases is so marked that the anamnesis already points to the diagnosis. The latter is more difficult in less pronounced cases when there is hypersecretion and hyperacidity. Here a chemical examination as to quantity and quality is necessary to determine accurately the nature of the disturbance of secretion.

Riegel does not consider it justifiable to follow Leube's plan of prescribing in most cases of chronic dyspepsia a trial dose of hydrochloric acid and pepsine. He recommends the use of Congo paper, first introduced into the diagnosis of gastric diseases by R von Hosslin. This paper can easily discover 0.0019 per cent of free acid, it being only necessary to put a drop of the contents of the stomach on the paper. If there be acid the paper turns blue, and the more acid the deeper the blue; while, if there be very little or no acid, the paper keeps its red color. This method alone can not decide whether the free acid is hydrochloric or lactic, but if there be a very perceptible reaction the presence of hydrochloric acid may be assumed, since, even when greatly diluted, it produces a deep blue color, while lactic acid, in a concentration of under one per cent, causes a far less intense change of color.

To test the efficiency of the Congo paper Riegel examined upward of one thousand specimens of gastric juice with it, in every case making at the same time an artificial digestion, the quantity of the acid being compared with the Congo reaction. In every case in which the juice clearly colored the paper, the filtered fluid digested albumen well, thus bearing out Riegel's opinion that there is scarcely ever a lack of pepsine when there is a sufficient quantity of hydrochloric acid. The intense blue of the paper often pointed to hyperacidity.

The use of the Congo paper does not do away with the necessity of other reagents, the digestive tests, and the determining of the quantity of acid, for scientific purposes. But in a doctor's practice these latter are not practicable; thus it is that Riegel recommends the use of Congo paper, (1) as a *diagnostic* criterion to determine whether there is sufficient hydrochloric acid or not, and (2) particularly as a *therapeutic* criterion to ascertain whether hydrochloric acid should be prescribed. Only when the Congo paper remains red or becomes but very slightly blue is hydrochloric acid to be ordered, but then in much larger doses than are generally given; never to be taken directly after a meal, but at least an hour or an hour and a half after. In cases of hyperacidity, when the paper becomes intensely blue, instead of using hydrochloric acid, prescribe rather neutralizing remedies, such as bicarbonate of soda, etc.

The following example is given. The patient takes a mixed test-meal. In about six hours, or earlier it may be, no other food or drink having been taken in the meanwhile, some of the contents of the stomach must be drawn, a soft Nélaton probe having been swallowed by the patient, which is easily done with a little help from the doctor. No water must be added. The microscopic appearance of the contents of the stomach may alone lead to important conclusions as to the nature of the disturbance of secretion.

Then a drop is put on Congo paper, or a strip of the paper is dipped in. If the paper turns blue, there is hydrochloric acid, and *vice versa*. Riegel repeats, that in recommending this procedure he has not in view exact scientific results, but practical help to avoid the too generally indiscriminate use of hydrochloric acid.

PARIS HOSPITAL THERAPEUTICS.—It may be useful to give in a short way, as complete as possible, the kind of medicinal treatment employed in the hospitals, and we take the service of Prof. Germain Sée as a guide. The following is from the official book of the Salle (or Ward) St. Jeanne, Hôtel Dieu:

DIAGNOSIS.	TREATMENT.
Anemia	Hemoglobine and pepsin.
Chlorosis	Sodii arsenias.
Zona	Antipyrine, 4 grams.
Hemiplegia	Todd's potion.
Peri-uterine phlegmon	Injections, terpine, nux vomica, and gentian.
Syphilis, cerebral	Biniodide of mercury, sulphur baths.
Chlorosis	Ferri et potassii tart. sulphate of aconitine.
Albuminuria	Tannin pill, ergotin pill, terpine pill.
Mitral insufficiency	Sparteine sulph., convallamarin.
Pericarditis and aortic ret.	Iodide of potass., digital., sparteine.
Myocarditis	Caffeine, sparteine.
Thoracic varix	Tinct. hamamelis, antipyrine, Vichy water.
Typhoid fever	Charcoal powder, naphthaline, quinine sulph., rectal injections.
Amyothropsia	Pill opium, mercurial frictions.
Mitral insufficiency	Digitalis infusion.
Dyspepsia	Charcoal powder, benzoate of soda, terpine.
Diabetes	M. Sée's régime, arsenic.
Hydroarthrosis	Antipyrine.
Phthisis	Arsenic, pill opium
Dilatation, stomach	Ipecac powder (5 centigrams), cocaine hydrochl. (5 centigrams); suppress all vegetables.
Emphysema	Terpine, iodide of potassium, pill opium, sparteine sulphate.

Of course, in this rapid list of actual patients and treatment we have not time to indicate the symptoms for which some of the remdies were given; but those accustomed to hospital practice will see the reasons and be able to compare the above with their own practice. *Medical Times.*

TREATMENT OF NEURALGIC SORE THROAT. Most practitioners of medicine have frequently noticed, upon inspecting a supposed sore throat, that, much to their astonishment, there was but very slight redness of the fauces, and that it could not in any way account for the painful sensations described by the patients. Dr. Huchard says that these cases are not inflammatory angina at all, as the pain is not owing to the inflammation itself, but they are what he calls "neuralgic angina." These cases are similar to those congestions or slight uterine hemorrhages that are associated with lumbo-abdominal neuralgia, or those ocular hyperemias that are provoked or at least kept up by facial neuralgias. The following are the clinical characters that will enable us to diagnose them: (1) An entire discordance between the pain and the superficial inflammation of the tonsils, etc. (2) Entire subordination of the hyperemia to the neuralgic symptoms, which last precedes all inflammation and often survives it. (3) The character of the pain is not continuous, but manifests itself by paroxysms which take place apart from deglutition, and increase at night. It is also very rarely isolated, but has other neuralgias (facial, occipital, cervical, etc.) at the same time, and it is frequently complicated with otalgia, which is much more violent than in other inflammatory forms, when seen with tonsillitis, for instance. These pains are frequently so violent that one is disposed to think of meningitis.

These clinical facts command the following therapeutic indications. The treatment must be directed more against the neuralgic element than against the congestive one; so that all emollients and antiphlogistic remedies are useless. To fulfill the pathogenic indication, Dr. Huchard advises the following antiperiodic and antineuralgic medicines:

Quininæ sulphatis	20 centigrm.;
Ext. aconiti radicis	1 centigrm. M.

Fiat pil. (one). Sig: Give three such pills, at an hour's interval, in the morning. When the neuralgic pains are very intense, give a cachet of hydrobromate of quinine, twenty-five centigrams, in which put a granule of aconitine of one quarter milligram size, and give it three times a day.

As to local treatment, order the pharynx to be touched two or four times a day with a little of the following mixture on a brush:

Glycerini (puri)	10 grm.;
Morphinæ hydrochlor	10 centigrm.;
Aquæ menthæ piperitæ	4 gtt. M.

The peppermint acts by its "antalgic" properties, as shown by Delioux de Savignac and others.

In all very painful sore throats, accompanied by spasmodic cough, the following formula may be used locally in the same way:

Glycerini (neutral) Aquæ menthæ piperitæ,	āā. 10 grm.;
Potassii bromidi	5 grm.;
Cocaimæ hydrochlor	50 centigrm.

M. Sig: Paint on the part as required.—*Ibid.*

Flatulent Dyspepsia.—Before closing Dr. Huchard's prescriptions, we would like to give one that he gives very often in the above disorder when it is the pure atonic form, without acidity or heartburn, but simply discomfort, pain, and flatulency. His idea is that there is present a decomposing fermentation, and therefore the indication is the antiferments:

Aquæ aurantii florum	100 grm.;
Aquæ melissæ	50 grm.;
Aquæ chloroformi (sat.)	100 grm. M.

Sig: Take a dessert-spoonful before each meal.

About the middle of each meal take a glass of oxygen-water. The oxygen-water ordered is now manufactured in Paris by a firm who have a process for making oxygen gas, and they deliver it in siphons, like the familiar ones seen in all the hotels and restaurants, and supposed to contain seltzer water.

The writer strongly advises the use of the above formula, as he has seen great benefit from it in a number of cases of flatulent dyspepsia. The oxygen-water might be replaced by some natural spring water with but little gas in it.—*Ibid.*

An Antiseptic Dentifrice.—(Dr. A. D. MacGregor, in British Medical Journal):

Boracic acid	grs. 20;
Chlorate of potash	grs. 30;
Powdered guiacum	grs 20;
Prepared chalk	ʒj;
Powdered carbonate of magnesium	to ℥j;
Otto of roses	♏ss.

The Treatment of Colds.—J. H. Whelan, M. D., writes that he uses the following for colds:

Quininæ sulphatis	gr. xviij;
Liquoris arsenicalis	♏ xij;
Liquoris atropinæ	♏ j;
Extracti gentianæ	gr. xx.
Pulveris gummi acaciæ	q. s.

Ut fiant pilulæ xii. Sig: One every three, four, or six hours, according to circumstances

Glycerine in Fevers.—M. Semmola has made use of glycerine diluted with water as a drink in the thirst of fevers; this he orders to be sipped throughout the day. His formula is:

Glycerini. pur	300
Ac. citr. v. tartar	2
Aquæ	600

Of this mixture he gives five to seven drams every hour. Of this drink M. Semmola states the thirsty patient never wearies and of it the stomach is exceedingly tolerant, so much so, indeed, that he has never seen any intestinal derangement when as much as an ounce and a half of glycerine was taken in the twenty-four hours.—*Jour. de Médecine.*

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. III. SATURDAY, APRIL 30, 1887. No. 9.

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A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

Books for review, and all communications relating to the columns of the journal, should be addressed to the EDITORS OF THE AMERICAN PRACTITIONER AND NEWS, Louisville, Ky.

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A NEW HYGIENIC PROBLEM.

A Western medical writer has discovered a new and dangerous source of malaria to be the cigar made of tobacco grown in malarial regions. He thinks the recent invasion of the New England States by malaria due to the increased use of Southern grown tobacco and Southern packed cigars.

It is quite evident that the writer, warned by the disturbing revelations of Wiggins, is disposed to break the matter softly and give us all the dread particulars of the discovery piecemeal—otherwise he would have pointed out the alarming increase in the shipments of Spanish moss to the Northern cities, a substance which is supposed by some to thrive speedily on the germ of malaria. Then there comes in the enormous commerce springing up in bananas, whose luxuriant clusters not only are dangerous from stowed away tarantulas and centipedes, but hide under every yellow rind zooglea of malaria germs to spread devastation and disease.

We have all wondered at the alarming prevalence of chills among the members of the Greely expedition and others who have essayed the journey to the north pole, but it is now clear that they carried with them the source of their discomfiture. If they had been content with Connecticut fillers as well as wrappers, instead of the more costly, malarious, Havana, we might not have heard so much of their suffering.

It is to be hoped that boards of health of the different States in the territory so seriously menaced may be alert and nip the evil in the bud.

THE INFLUENCE OF MATERNAL IMPRESSIONS ON THE FETUS.

The above is the title of an interesting brochure just published by Dr. Fordyce Barker, from the eleventh volume of Gynecological Transactions.

Dr. Barker takes strong grounds in favor of the view that the development of the fetus may be more or less determined by mental impressions made upon the mother, and adds to those already reported a number of interesting cases in corroboration.

It would not be easy to find an intelligent person who is not so dominated with the notion that maternal impressions do affect the fetus, as to regard with uneasiness the exposure of a pregnant female friend to disturbing sights. This may be a superstitious notion, but it is universal nevertheless.

Nor is scientific support altogether wanting in its behalf. That maternal impressions do affect the offspring there is hardly any where a doubt, but this expression is too indefinite to meet the requirements of the argument. That the stamp of the quagga should be upon subsequent progeny in a mare first bred to the quagga would go to show a physical alteration of maternal cells. The mental impression made by the quagga ends with the separation, and must just as certainly occur without foundation as with it, if the emotions produced in the mare by contact with the quagga are the cause of the subsequent marking of her colts. A moment's thought will show that observations here are not sufficiently full.

The experiments that throw most light on this subject are those of Prof. Panum, and of Dareste, in regard to the hatching of eggs.

Panum produced malformations in embryo

chicks by varying the temperature of the incubator and by varnishing the egg-shells. Dareste made like experiments, and produced malformations by arrest by placing the eggs vertically, varnishing the shells, raising the temperature above 45° C., and by warming the eggs in an irregular manner. He has more recently shown that abnormalities may be produced by prolonging the interval between the laying and the incubation of the egg.

There is no reason why similar and equally strong influences might not be brought to bear on the fetus through impressions upon the mother. But when it comes to the definite and distinctive implantation of features foreign to the race or of genus changes, such as amputations and the like, then incredulity becomes obstinate. It is then that we feel forced to seek explanation in coincidences.

It is not, however, in the interest of an intelligible principle that we would reject the influence of maternal impressions in these cases, for we are as near an explanation when we are told that a child resembles a sheep because its mother got frightened at one, as when we are told that some inherent character of the ovule determined it. And after all we need not be troubled if this generation fails to solve the puzzle; something should be left to exercise the ingenuity of the generations to come.

Notes and Queries.

Professor Huxley on Smoking.—At a certain debate on smoking among the members of the British Association, Professor Huxley told the story of his struggles with "the flagrant weed." "For forty years of my life," said he, "tobacco has been a deadly poison to me. [Loud cheers from the anti-tobacconists.] In my youth, as a medical student, I tried to smoke. In vain! At every fresh attempt my insidious foe stretched me prostrate on the floor. [Repeated cheers.] I entered the navy. Again I tried to smoke, and again met with defeat. I hated tobacco. I could have almost lent my support to any institution that had for its object the putting of tobacco smokers to death. [Vociferous cheering.] A few years ago I was in Brittany with some friends; we went to an inn; they began to smoke and looked very happy, and outside it was very wet and dismal. I thought I would try a cigar. [Murmurs.] I did so. [Great expectations.] I smoked that cigar—it was delicious! [Groans.] From that moment I was a changed man, and now I feel that smoking in moderation is a comfortable and laudable practice, and is productive of good. [Dismay and confusion of the anti-tobacconists. Roars of laughter from the smokers.] There is no more harm in a pipe than there is in a cup of tea. You may poison yourself by drinking too much green tea, and kill yourself by eating too many beefsteaks. For my own part I consider that tobacco in moderation is a sweetener and equalizer of the temper." [Total rout of the anti-tobacconists, and complete triumph of the smokers.]

Diabetes and Tabes.—MM. Pierre Marie and Georges Guinon (*Rev. de Méd.*) have found the knee-jerk absent in three cases of diabetes; and some cases of diabetes approach so near some forms of tabes as to be distinguished only by the excretion of sugar. A case might be one of tabes or diabetes, with complete loss of knee jerk, lightning pains, unsteadiness with the eyes shut, etc. The presence of sugar in the urine would, however, determine the diagnosis, as the writer has not found sugar in the urine of any case of tabes at the Salpêtrière. M. Jendrássik says the knee-jerk can be revived in cases of neurasthenia and diabetes, where it has sunk to almost nothing, by making the patient attempt a muscular effort with his body and arms while the knee-reflex is under examination.—*New York Medical Abstract.*

Treatment of Erysipelas.—For the treatment of erysipelas Dr. Archangelski has tried a number of applications, and finds that their comparative efficiency is represented by arranging them in the following order: (1) Benzoic acid; (2) tincture of iodine and turpentine, as ointment; (3) sulphate of copper; (4) sulphate of iron; (5) oxide of zinc; (6) naphthalin; (7) solution of perchloride of mercury, 1 to 300; (8) chloride of zinc; (9) iodoform.

In our last issue we playfully preferred against a few contemporaries, among them the scholarly Brother James of the St Louis Medical Journal, the serious charge of labor saving, in that, as we thought, they had appropriated certain translations of ours without giving due credit. Brother James writes us a note in which he says we have done him injustice, as he himself translated the article referred to. While we were honest in our first opinion, Brother James' disavowal is conclusive, and we cheerfully make all due apologies. S.

Medical Societies in Great Britain.—Vague statements are unheeded; and if imagination is suspected as a possible source of stated fact, a clapping of hands is an indication of *that fact* having been duly noted. The most imaginative could not devise a readier method of expression than the clapping, graduated on a crescendo scale, which marks distrust or disapproval; and tediousness or irrelevancy receives a quietus in the same way.

Glycerine in Acute Fevers.—Semmola (*Jour. de Med.*) gives the following: pure glycerine, 150; tartaric, or citric acid, 1; water, 300 parts. Of this mixture, four to nine teaspoonfuls may be dissolved in water and given every hour. It is a very agreeable drink, in no way incommodes the stomach, and produces no intestinal derangement. The result is, that under the use of this medicine the quantity of urea diminishes.

Mercury Subcutaneously in Syphilis.—Dr. Lustgarten, in charge of Kaposi's Clinic, is investigating the subject of subcutaneous injections of insoluble forms of mercury in the treatment of syphilis. He promises a publication of his results obtained from tannate of mercury thus used at an early date.

A Solution of Salicylate and Iron used for Rheumatism in New York Hospital is made as follows:

Acid salicylic	℈j;
Ferri pyrophosphat	grs. v;
Sodii phosphat	gr. j;
Aquæ	℥ss.

M. Sig: One dram every two hours.

Warts, Remedy for.—Among the latest remedies for these growths is the addition of fifteen grains of corrosive sublimate to an ounce of collodion, and with this sublimated collodion the wart is to be brushed once daily. (*Zeitschrift d' Oester Apotheker*, v.) A more safe and equally efficacious application is a saturated solution of the carbonate of sodium, common washing soda. After many trials, I have found it superior to all other remedies for removing warts.

Dislocations of the Shoulder.—(Neil Macleod, M. D., British Med. Jour.) Place the patient on his back on the floor with his arm at right angles to the body, tell him to lie limp, and if there is any pain to report it. The surgeon, sitting on the floor, places his heel in the axilla, quietly takes the injured limb by the wrist and upper arm, and pulls in a line at right angles to the line of the trunk, at first gently and gradually increasing up to a force of a few pounds, the arm being still on the floor, or but slightly raised from it. Reduction may take place without any intimation. Should all the force that can be applied, short of giving pain, fail, gentle rotation first in one direction and then in the opposite can also be made with traction. The writer reported two cases reduced by this method about a year ago. It is painless and requires but little force.

SPECIAL NOTICES.

"Coca as a Cardiac Tonic."—The New York Medical Record of February 26, 1887, gives an interesting article, entitled "Heart Strain and Weak Heart," by Beverley Robinson, M. D. We extract the following (p. 238):

"On several occasions, when digitalis has proved to be useless or injurious, I have had very excellent results from caffeine or convallaria. Certainly the latter drug is more easily tolerated by a sensitive stomach than digitalis is; and whenever the nervous supply of the heart is especially implicated, I believe that I secure more quieting effects from its employment. Among well-known cardiac tonics and stimulants, for obtaining temporary good effects at least, I know of no drug quite equal to Coca. Given in the form of wine or fluid extract, it does much at times to restore the heart-muscle to its former tone. I have obtained the best effects from the use of Mariani's Wine. From personal information given me by this reliable pharmacist, these results are attributable to the excellent quality of the Coca leaves and of the wine which he uses in its manufacture."

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. III. [NEW SERIES.] LOUISVILLE, KY., MAY 14, 1887. NO. 10.

> *Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.*—RUSKIN.

Original Articles.

CHOLERA INFANTUM.*

BY R. B. GILBERT, M. D.

Cholera infantum is, of all children's summer complaints, the most rapid and severe. The proportionate rate of mortality from this disease is as great as that of any to which infant life is subject, excepting possibly diphtheria. Let it be understood that, by the term cholera infantum, I mean the true choleriform diarrhea of infants that is characterized by copious watery evacuations, severe nausea, and rapid emaciation. The reason why I am thus particular to define the meaning of the term is, that in looking at the mortality reports in our city health-office I find that many physicians of Louisville, and indeed several Fellows of this Society, in filling out the burial permits for infants dead of alleged cholera infantum, have put down under the head of duration of last illness (as a cause of the death) periods of time varying from one day to four weeks. It is evident that the physician who reports a case of cholera infantum as lasting two or three weeks makes no distinction between cholera infantum and the ordinary summer diarrhea. Thus it is that our mortuary statistics, as compiled by the health-office, are not wholly reliable data upon which to estimate the actual number of cases of true cholera infantum occurring in our city. The same errors exist in other American cities probably to the same extent as in Louisville.

The following compilation from our health-officer's mortality records, from July 1st to September 30, 1881, illustrates the point in question:

Number of Cases.	Duration of Disease.
1	½ day.
3	1 day.
7	3 days.
4	4 days.
11	7 days.
2	14 days.
3	30 days.
1	42 days.
1	60 days.
57	Not stated.

Ninety cases in all for the quarter.

One case, age seven months, is reported dead of cholera infantum of three weeks' duration; one as having died of "teething" in two days.

As a rule, cholera infantum begins suddenly; there may have been a previous diarrhea which had caused no alarm, but suddenly the evacuations become copious, frequent, and watery. There is usually a small amount of fecal matter in the first few evacuations, but later they are so thin that they soak into the napkin like urine, leaving scarcely a stain. The discharges have a peculiar odor, not fecal but musty and offensive, and they consist almost wholly of serum with a small proportion of mucus. The serous secretion or exudation appears to be produced by a sort of perspiration upon the mucous surface of the alimentary canal, rather than by follicular secretion (resembling in some respects the colliquative sweats occurring upon the skin). This condition is probably due to some disturbance of the sympathetic system. Very soon, within an hour or two after the onset of the disease, there is great thirst and irritability of the stomach. Whatever drinks are swallowed by the infant are almost immediately rejected. Ice-water is taken with avidity to allay thirst, but it is vomited as soon as it becomes warm in the stomach.

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*Read before the Louisville Medical Society.

During the first twenty-four or forty-eight hours of the disease the internal temperature runs high (104° to 106° F.), but later the temperature drops to normal, and even below, as death approaches. If not arrested, the disease usually terminates fatally in from two to three days.

In typical cases of cholera infantum the gastro-intestinal mucous membrane is thickened and flabby, and there is enlargement of the patches of Peyer and the solitary glands. The mucous membrane appears pale, not presenting the usual scarlet red color observed in ordinary inflammation of the mucous membrane. There is usually not much anatomical lesion except in the organs of digestion. Some cases have cerebral symptoms, due to spurious hydrocephalus. Some of the cerebral symptoms may be due to uremia, as in this disease the secretion of urine is very scanty.

The diagnosis of cholera infantum is easily made; the character of the stools, together with vomiting, thirst, and rapid sinking serve to distinguish it from all other diarrheal affections. The prognosis is always unfavorable; but recoveries are not rare.

The two principal causes of the disease are dietary and atmospheric influences. Under the head of atmospheric causes we may enumerate the various foul gases emanating from cess-pools, filthy gutters, and decaying animal and vegetable matters under a high solar temperature. The debilitating influence of solar heat alone is a potent factor in bringing about conditions of the system favorable for the development of cholera infantum on slight provocation. I have in two instances known the disease to be brought on "during a hot spell of weather" by the child inhaling for a few minutes the foul odors from a privy vault, it having been carried to the closet by a careless nurse. The existing high temperature and the foul gases being the only recognizable factors in bringing on the attack. The purgative effect of impure air has been frequently observed. I have often seen the medical student suddenly seized with diarrhea upon his first visit to the dissecting-room. Some writer, more remarkable for ingenuity than a knowledge of chemistry, has suggested that the gases inhaled form chemical combinations with salts in the blood, and thus become purgatives. Thus, sulphide of ammonium in the form of a gas, under certain conditions, becomes a sulphate which, encountering common salt in the body, forms sulphate of sodium and chloride of ammonium.

An enterprising German microscopist has recently made a report on the discovery of a specific bacillus of cholera infantum; he claims to have found the bacilli in the discharges and adhering to the mucous membrane of the small intestines.

We pass on to notice briefly some of the dietary causes of the disease. The mother's milk itself may, under certain perturbing influences, become for the time almost indigestible on account of the presence of colostrum or acid. The milk will become acid if the mother habitually eat much acid food. Colostrum will appear in the milk if the mother be subjected to violent mental emotions, as grief or anger, rendering her milk unwholesome. A few years ago I reported several cases in which venereal excesses on the part of wet-nurses were immediately followed by fatal attacks of cholera infantum in the infants they were suckling. I attributed the attack to changes taking place in the women's milk while under protracted sexual excitement. A specimen of the milk placed under the microscope showed an abundance of colostrum. There was an excess of cheesy elements. It has been repeatedly shown that the same change, in some degree, occurs in the milk during the menstrual period and in pregnancy. These modifications of the milk, together with the pre-existing tendency to diarrhea in hot weather, are certainly competent to bring on an attack of cholera infantum.

Spoon-fed infants are more liable to diarrhea than those wet-nursed, for the reason that the artificial diets are, as a rule, not as easily digested as the mother's milk. "One cow's milk," as we so often hear recommended, may readily become almost indigestible by modifying influences upon the cow herself, such as feeding on swill slop and being chased or worried by dogs. May we not reasonably expect, as in the case of the wet-nurses above referred to, that sexual excitement incident to her "bulling season" would bring about changes in her milk that would be injurious?

Cholera infantum may be brought on by overfeeding with wholesome food, especially of foods containing starch. Prof. Jacobi, of New York, has called attention to the fact that the young infant is unable to digest starchy foods on account of the yet undeveloped condition of the pancreas. Acrid substances, such as unripe fruits and vegetables, are potent causes of severe and fatal forms of diarrhea.

A question often asked by the laity, and sometimes answered in the affirmative by the medical man, is whether or not teething is a cause of infantile diarrhea? For my part I do not believe that dentition alone ever operates as a cause of diarrhea. The development of the teeth is a natural physiological process, and it is reasonable to conclude that nature does not contradict herself by permitting a normal physiological process to become the cause of serious disease. An explanation of the greater frequency of cholera infantum during dentition (and that period includes the second summer) is found in the fact that simultaneously with the eruption of the teeth there is a rapid change going on in the mucous membrane of the digestive tube, viz., the development of the gastro-intestinal follicular apparatus, and attending this physiological process there is an abundant blood-supply to the parts, which Barrier calls "sub-inflammatory turgescence." It is this turgescence of the mucous membrane that makes it so easily disturbed by unwholesome food. It is easy thus to understand how a severe form of diarrhea may be set up, but it is not easy to explain how the development of the teeth can, by "nervous reflex" or otherwise, bring on such a result.

In the matter of treatment of cholera infantum, preventive measures are of paramount importance, and to this end proper feeding and pure air must be insisted upon. As to artificial food for infants, I believe that carefully selected cow's milk, and the condensed milk, especially the "Eagle brand," are the most reliable.

The leading indications in the medical treatment are to arrest the copious watery evacuations and allay nausea, together with supportive measures. To meet the first-mentioned indication decided astringents are to be given, selecting one least liable to nauseate. I prefer acetate of lead, given in one-grain doses, dissolved in some bland liquid. A dose to be given after each action, no matter if these actions occur every fifteen or twenty minutes. Vomiting can usually be controlled by small doses of creasote suspended in mucilage. Should it be impossible to administer medicines by the stomach, as will sometimes be the case, our next resort is astringent enemas, to which may be added a small amount of opium. I have used with good results in such cases ten grains of tannin to one drop of laudanum in one half ounce of starch-water, repeated every two or three hours.

As a supportive measure I know of nothing better than milk, which should be given as hot as the mouth will bear without discomfort. Hot milk administered in small quantities at short intervals tends to allay nausea and support the vital powers; thus given, it is a stimulant, a better stimulant, indeed, than whisky. As a rule whisky is not well tolerated by infants, even when there is no stomach trouble present.

Dr. Perry Watson, of Jersey City, has recently reported several cases of cholera infantum successfully treated by hypodermic injections of the sulphate of morphia in doses of one fiftieth grain to an infant one year old. I have had no experience with this method of treatment.

LOUISVILLE.

PURPURA HEMORRHAGICA, THE RESULT OF INGESTION OF COAL OIL.*

BY PETER GUNTERMANN, M. D.

Patient is the third son of healthy parents, and has two younger brothers in good health. He is about five years old, and was always well until October 22, 1886, when, through carelessness, he was allowed to get hold of a coal-oil can, from which he swallowed, as was afterward proved, about two tablespoonfuls of the oil. Since the little fellow only made faces, and did not even get sick at the stomach, nothing was made of the accident. But the once stout boy and hearty eater directly lost his appetite and became puny. Not even after blotches of all the colors of the rainbow made their appearance on the body of the boy did the otherwise prudent and intelligent parents become alarmed.

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*Read before the Louisville Clinical Society, April 26, 1887.

On November 5th, the following month after the accident occurred, the boy stumbled on the bare floor and fell. Epistaxis was the consequence of the fall, and for the relief of this I was eventually called. Amused at being sent for to treat the result of such a trifling injury, in a boy whom I had known from his infancy to be stout and robust, I went. Imagine my amazement on seeing the boy much bruised, and bleeding from both nostrils in full stream.

The bleeding was first and temporarily attended to, and then—Whence those bruises, if bruises they were? The boy had never been sick until he swallowed the coal oil; he began to ail soon afterward. He lost his appetite, became droopy, and many bruise-like spots were visible upon his body. Stigmata, petechiæ, vibices, and ecchymoses covered at least one third of the surface of the body. None were found on the mucous surfaces, so far as could be seen. They were rather pale and anemic, and not at all spongy.

I diagnosed the case as one of purpura hemorrhagica, the first I had ever seen due to poisoning by coal oil, and, considering the severity, gave a very unfavorable prognosis.

To return to the epistaxis. This proved to be very obstinate, as the nature of the case would lead one to suppose. A plug of absorbent cotton was placed in the nares till I could further study the case. Now hot water injections were tried, then the different styptics and hemostatics, such as perchloride iron and tannic acid locally; I gave sulphuric acid and turpentine internally, but to no avail. Finally the nose was tamponed, blocking up the anterior and post-nasal outlets completely, and ergot was given internally. The bleeding ceased. But blood again flowed by the sides of the tampon, and issued from the puncta lachrymalia. I knew of no other local application, and had to rely on internal medication alone: Fluid extract ergot, xxx♏ every hour, tincture iron mur. x♏ every two hours, and lime juice and pepsine *ad libitum.*

For three days the boy lay almost motionless, and only automatically swallowed what was put into his mouth. His pulse could scarcely be felt, never counted. After the third day of tamponing, etc., all bleeding ceased. The little sufferer was but a mass of flesh and bone, with hardly any thing alive except a heart yet able and willing to propel and distribute what little of the fluid of life was remaining. The tampons were left *in situ* two days longer; medication was continued as before, with suitable light nourishment. On November 11th, six days after their introduction, the tampons were removed with due precaution. Happily, the bleeding did not return. The ergot was reduced to x♏ every three hours, and the iron proportionately, but lime juice and pepsine were given as lemonade. This, with the lime juice, was continued for some time. Ergot was given more sparingly from day to day, and altogether discontinued on the 15th of November. The boy rapidly improved.

The disease in this case was neither purpura simplex, purpura febrilis, or purpura rheumatica, the latter a misnomer, but a true morbus hemorrhagicus maculosus — emphatically purpura hemorrhagica. While the boy had no other hemorrhage, as far as could be discerned, than that from the nose, and this perhaps due to traumatism, it was very profuse and almost uncontrollable. The extravasations under the skin were simply enormous. Knowing the family, its history, and other circumstances thoroughly, I may very properly exclude hematophilia or scorbutus, and call the disease purpura hemorrhagica, due to coal-oil poisoning.

Since carbolic acid is a derivative of coal-oil compounds it may not be unreasonable to assume that the primary action of one on the stomach of the animal would closely resemble that of the other. Now, carbolic acid is first an irritant poison, and so should be coal oil. In the preceding case no such action was shown, not even the slightest nausea was provoked. How, then, did the oil act? It may have entered the blood current, producing chemical changes; it may have altered the blood-vessels themselves, or it may have caused an intense vaso-motor paralysis, all of which would favor not osmosis but diapedesis and true extravasation of the blood out of its proper channels into the tissues. This supposition is strengthened by the good effects of the ergot.

LOUISVILLE.

AMPUTATIONS IN SHOCK.*

BY WM. L. RODMAN, A. M., M. D.
Demonstrator Surgical Dressings, University of Louisville; Surgeon to City Hospital.

I have selected as a subject for my paper, Amputations in Shock. I give a report of three cases operated upon within the past six weeks, and add a few supplementary remarks. The cases differed greatly as to the degree of shock. The first one was extreme, the second rather marked, and the third quite mild.

Louis Byerly, aged thirty-seven, switchman at the J., M. & I. R. R. depot. At 9 A. M., January 4th, Mr. B., while coupling cars, lost his footing, and his right leg was run over by a freight car, well loaded. The rails were covered with ice, and he slipped in such a way as to get his leg under the wheels to a point above the knee. Of course, the injury was great. The foot was crushed, ankle joint torn open, both bones of leg fractured at several points between ankle and knee, and there was also a compound comminuted fracture of the knee-joint itself. Patient was seen at the depot about forty-five minutes after the accident by the road surgeon, Prof. Yandell. Although whisky had been given freely by some bystander before the doctor saw him, his condition was one of extreme shock. As soon as Dr. Y. arrived, one half grain of morphia, with atropia, was given hypodermically. There was scarcely any pulsation at the wrist, and it was altogether impossible to count the pulse. The respiration was superficial and rapid at times, slow, deep, and sighing at others. This irregularity of the respiration is always indicative of extreme shock. His face was very pallid, skin cold, and covered with clammy perspiration. He was only semi-conscious, and had to be spoken to in a loud voice before he could hear what was said to him. His answers were incoherent; pupils widely dilated.

Patient was sent to Sts. Mary and Elizabeth Hospital, where he arrived at 11 A. M., two hours after the injury. About fifteen minutes after his arrival he was seen by Drs. Yandell, Pearce, Barber, and Rodman, and it was found that his condition was little, if any, improved.

There had been some, but not a great amount of hemorrhage, and this came from a wound in the femoral artery made by a spicula of bone. The shock being very profound, and he not having rallied perceptibly in two hours, it was thought that this condition was being kept up by the presence of the mangled limb, therefore immediate amputation was decided upon. Dr. Yandell kindly asked me to operate. A circular amputation was done at the lower part of the middle third of the thigh. The tissues here were found somewhat bruised, and, not being satisfied with their appearance, the limb was re-amputated about two inches higher up. The main vessel was found to be punctured by a spicula of bone. There was extravasation of blood into the surrounding tissues, but not to the extent one might imagine. The femoral artery was tied with a catgut ligature, and no other vessels being discoverable, the Esmarch's bandage was removed. We expected bleeding from the profunda when this was done, but none occurred. Nor was there hemorrhage from any vessel. The only ligature used was upon the femoral. Being high enough up to have bleeding from the profunda, I feared that it would take place when the heart's action became stronger. With this in mind, I suggested leaving things as they were until reaction should come about. Dr. Yandell thought it best to close the wound, and it was done by the continued catgut suture. Catgut was also used for drainage. The stump was dressed antiseptically. When the operation was concluded, the patient was put between blankets, bottles and jugs filled with hot water were placed around him, and the temperature of the room elevated. Shock was still extreme. The pulse could not be felt, and the respiration was very irregular. I neglected to state that the pulse was somewhat improved when chloroform was first administered.

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* Read before the Medico-Chirurgical Society, February, 25, 1887.

Dr. Barber, the house surgeon, was requested to give morphia and stimulants as he thought them indicated, the whisky to be given warm and as an enema.

At 9 P. M., twelve hours after the injury, reaction commenced, temperature at this time 98°, pulse was very weak, but could be counted for the first time. It was 160. I regret that the temperature was not taken during the extreme shock, for it certainly must have been several degrees below normal. Reaction was quite well established during the night, for the following morning, at 9 o'clock, twenty-four hours after the injury, he was quite comfortable, with a temperature of 100° F., pulse, 144. He had passed no water for twenty-four hours. The catheter was used and nearly a pint of high-colored urine drawn off.

The case did uninterruptedly well from this on, and at the end of three weeks was on crutches.

CASE 2. Joe Merta, aged nineteen, lamplighter on the Kentucky and Indiana Bridge. At 11 P. M., January 14, 1887, he jumped from the cars while in motion. He slipped, and his right leg passed under the wheels. The limb was badly crushed up to the knee-joint.

I was called to see the case by Dr. Parsons, and as he was some distance from me, on Thirty-third and Rudd Avenue, it was nearly 1 A. M. when I reached him. The extent of the injury was such that amputation just above the knee was necessary. Shock was not so great as in Case No. 1, though well marked. Pulse was weak, but could easily be counted. It was 140. No doubt the heart's action and the symptoms of shock had been somewhat improved by morphia which had been given by Dr. Parsons. He was very pallid, skin cold and covered by clammy sweat, pupils dilated, thirst very great. He was still suffering greatly, notwithstanding a liberal amount of morphia which had been given. Assisted by Dr. Parsons and Mr. Swope, a student of the University, I amputated at the lower third of the thigh. Patient bore chloroform admirably, and at the conclusion of the operation his pulse was about as good as when it was begun. Animal ligatures and sutures were used, drainage made by catgut, wound closed by continued suture, and dressed with strict antisepsis. After being thoroughly irrigated with carbolized water, boracic acid was dusted over the surface; it was then covered with antiseptic gauze, borated cotton, and all secured by crinoline bandage.

The customary fever of reaction supervened, and at 7 A. M. on the 15th his temperature was 101° F., pulse, 136.

No urine was voided during the first twenty hours after the injury, and then the bladder was relieved by the catheter. There was nothing unusual in the subsequent history of the case. Dressings were not disturbed for a week, and then the wound had united throughout the greater part of its extent by first intention. He was sitting up in two weeks, and on crutches in three.

CASE 3. February 19, 1887, I saw, with Dr. T. A. Graham, of Jeffersonville, Gus. Gardner, a lad fifteen years of age, whose right foot had been crushed by a locomotive passing over it. This occurred at 2 P. M. I saw him at 3:30. Shock was less severe than in either of the other cases. Temperature was nearly normal, 98° F., pulse 130, surface very pale, pupils dilated, skin comparatively dry.

Drs. Graham and Pearce assisting me, I did a circular amputation, four inches above the ankle. Operation was well borne in every way. Stump dressed antiseptically, wool being used instead of cotton. It is far preferable to cotton, and, were it less expensive, would soon come into general use as a surgical dressing. For the padding of splints in fractures it is incomparably better than any thing else. I have not seen the case since the operation, but doubt not that he is doing well, else Dr. Graham would have so reported. The dressings will not be changed for a week or ten days.

There can be no question of more importance and interest to the practical surgeon than the one of amputations in shock. While amputation for disease is done much less frequently than in the past, it is proportionately more frequent for injury. The increasing number of railroads, more complicated machinery of all kinds, make it imperatively necessary for the surgeon to resort to amputation more often than is to be desired. For my own part, I always dislike to amputate, and, each time I do so, wish that something less radical could be substituted.

However, it is so often demanded that it becomes necessary for us to select the most auspicious moment for its performance. Until recently, the rule of waiting for reaction to come about had no exceptions. It was inflexible. A larger experience, however, conjoined with more critical observation, has led to the belief, and very justly so I think, that the rule is not so inflexible as it was once thought to be. That many lives have been sacrificed to a too rigid enforcement of this practice I can not doubt, my own experience having furnished more than one instance proving the undesirability of waiting for reaction to appear. I not only believe the rule to be false in part, I am almost prepared to say that "*falsus in uno, falsus in omnis.*"

I believe that it would be better to reverse the practice and operate in all cases during shock, where the nature of the injury is such as to admit of operative interference at all, than to invariably wait for reaction to manifest itself. In this, as in other things, safety lies in the middle course, and a too rigid adherence to either line of action is not to be commended. He who always waits for reaction to come about before operating acts unwisely. He who always operates in extreme shock is unmindful of surgical teaching.

Only general rules can be made to guide our action, and he who expects to treat every case according to the strict letter of surgical law indulges in a dream never to be realized. Shock, perhaps more than any other condition the surgeon sees, will vary with the age, temperament, general health, nature of the violence, presence or absence of pain, hemorrhage, etc. The rule, so generally laid down by modern authors as to be almost universal, is to wait for reaction to come on before amputating, for it is argued that the shock of the operation is an additional burden put upon the patient, and at a time when he is least able to bear it.

While this sentiment is so nearly unanimous on this point, it is equally so upon another, and that is, that in cases of profound shock, when it is believed that a mangled limb is keeping up this condition by causing pain and loss of blood which can not be controlled, amputation should at once be done, regardless of shock, though it be mild or severe. Nothing is better established than the fact that shock may not only be perpetuated but increased by the presence of a mangled limb, where there is not only fracture of bones but putrefying of the soft parts. The special gravity of shock from railway accidents is almost as much due to the mental terror which they inspire as to the physical injury inflicted. The mental and corporeal shock combined render these injuries the gravest of all.

In railroad surgery, I take it that he who ignores reaction and amputates in shock will, as a very general rule, give his patient the best chance for life.

Ether, as an anesthetic, is to be preferred to chloroform for operations in shock. It is a cardiac stimulant, while chloroform is a depressant. If the pulse improves in quality, that is, comes up in volume and down in frequency when the anesthetic is begun, it is a most favorable omen, and should strengthen the surgeon in his determination to operate. If, on the contrary, the pulse is unimpaired, or perhaps becomes weaker, shock may in all probability be more dependent upon some visceral injury than the condition of the limb. When internal injury can be made out, no operation is to be considered.

The study of the temperature is not given the attention in practice that its importance entitles it to. Wagstaff, who, more than any one else, has made a study of the temperature in shock, has deduced the rule that no capital operation should be performed when the axillary temperature is less than 96° F. Cases with a temperature below 96° have recovered, exceptional though they be. One with a temperature of 91° F. recovered.

The arguments favorable to amputation in shock are, first and greatest, the large mortality attending intermediary amputations. The danger of intermediary operations is so great that if a failure to operate in shock will carry the case over to the intermediary stage, all objections to operating in shock are to be lost sight of in the face of the *greater danger.* We divide amputation into immediate (six to twelve hours after injury), primary (twelve to twenty-four or forty-eight hours), intermediary (on to suppuration), secondary (after suppuration has fully appeared).

It will oftentimes happen that the timidity of the surgeon will make intermediary amputation with all its attendant dangers necessary. Those who oppose immediate operations admit this to be a strong point in their favor. Secondly, the danger of delayed shock has led many to favor immediate amputations. While many deny that there is such a condition, there are strong evidences that it does sometimes occur. Assuming that it does occur, the argument is not inapt. Third, it is best, especially in military practice, to operate during a certain amount of excitement. Experience has abundantly proved that this is the most auspicious time. The advocates of delayed shock were not the first to urge the propriety of immediate amputations. Wiseman, who was sergeant-surgeon to Charles II, said, "If you operate, do so while the soldier is in heat and mettle." Ambrose Parè said, "Operate in sight of the battle-field." Fourth, the additional shock inflicted by an operation upon one already the subject of shock has probably been greatly exaggerated. The nervous system is in such a state as not to be readily impressionable to further shock, and I believe that an amputation adds but little, if any. Stephen Smith has, with great labor and fidelity, collected statistics of four hundred and thirty-nine recovered amputations. Thirty-six per cent were made *six* hours after the injury, which means that they were done in shock, and he has estimated the rate of recovery to be six per cent better than where amputation was done in the period of *reaction.*

LOUISVILLE.

FOR corns and bunions an efficient remedy is equal parts of castor oil and tinct. iodine. This is to be painted on the part two or three times a day.—*North Carolina Medical Journal.*

Societies.

LOUISVILLE CLINICAL SOCIETY.

April 26, 1887, President John A. Ouchterlony, A. M., M. D., in the chair.

Dr. Satterwhite presented a patient, Mr. T. F., aged about fifty, occupation, horse-shoer. He had excellent health until a few years since, when he began to have falling fits, with loss of consciousness; a convulsive motion of the right arm was noticed. The case was at first thought to be simply epilepsy, but more extended observation and examination have induced the speaker to modify his opinion. Patient's pulse was always regular and full, and making normal number of beats per minute.

Dr. Ouchterlony: Examination of the heart reveals a distinct systolic bellows murmur, heard at the base of the heart, and transmitted along the great vessels into the neck; there is also a systolic murmur at the apex, transmitted along the lower part of the left chest, and heard in the left interscapular space. The area of precordial dullness is increased but the heart's impulse is weakened. The pulse at the wrist, however, is full and regular; there is enlargement with dilatation of the heart, but the character of the pulse and circulation, and the absence of all secondary symptoms, preclude the existence of marked stenosis at the aortic orifice, and any great degree of leakage through the mitral valve. The paroxysmal seizures are of epileptic character.

Dr. Brandeis thinks there is aortic stenosis. The patient took large doses of bromide of potassium, and the epileptiform convulsions ceased for three months. When the dose was reduced the fits recurred.

Dr. Leber thinks there is not much hypertrophy, but believes the enlargement to be due to dilatation. The valvular trouble is, he thinks, mitral regurgitation. The nervous phenomena are epileptiform.

Dr. Satterwhite: If the trouble is purely of cardiac origin, why does not the bromide aggravate it, instead of being of such great benefit? Further, the patient uses tobacco and strong coffee. Shall he be deprived of his stimulants?

Dr. Brandeis would withhold the coffee,

allow stimulants in moderation, purge him occasionally, suspend hard labor and substitute for blacksmithing moderate exercise in the open air. He suggests in addition the use of jaborandi, in view of the fact that the patient always feels better when the weather is warm and sweating is free. Dr. Leber suggests nitrate of silver; Dr. Cheatham, atropia.

Dr. Ouchterlony thought atropia would do good in the epilepsy; for the heart trouble he would give digitalis. The heart is certainly weak, and there will probably be no compensatory hypertrophy, as the time for that is past.

Dr. Cheatham reported a case of rapid tracheotomy. He was called early in the morning, a few days since, to see a patient, forty-two years old, who was breathing with great difficulty; there was great edema of the glottis, although the cords were not involved. He first tried scarification, but no relief being obtained, and the danger being imminent, he performed rapid tracheotomy. Hemorrhage, extensive at first, ceased after respiration was established. Relief complete. The tube was worn from Tuesday until Saturday. Tracheal wound almost closed. The speaker would have tried intubation, but had no adult tubes.

Dr. Leber: Why did you not do laryngotomy?

Dr. Cheatham: The patient was in such danger that I had no time to weigh the merits of the two operations.

Dr. Anderson: What is your explanation for the sudden increase of apnea after scarification?

Dr. Cheatham: Probably considerable blood escaped downward.

Dr. Guntermann read a report of a case of purpura hemorrhagica after ingestion of coal oil. (See page 291.)

Dr. Leber had seen one case of purpura since the war (during which he had seen many). This patient had chronic malarial cachexia. In Dr. Guntermann's case, he thinks the coal oil, by acting on the blood, caused diapedesis and ecchymoses.

Dr. Cottell attributes the symptoms to the naphthas and other hydro-carbons in the coal oil, which prevented the red blood corpuscles from carrying their due quota of oxygen, and caused destruction of the fibrin-making ferments. He saw a case of coal oil poisoning a year ago. A negro child had taken perhaps one or two tablespoonfuls of the oil. She showed no signs of internal irritation, except a considerable quickening of the pulse. He prescribed an emetic, and detected the odor of coal oil in the vomitus. There were no after-effects.

Dr. Bloom: I reported a case of purpura in one of the journals here, which occurred in my practice last Christmas. I never heard of a case to occur from the ingestion of coal oil. I find the explanation not far to seek, knowing that a vitiated condition of the blood may cause diapedesis, or chemical decomposition of the blood within the vessels, with a separation of the hematin from the red blood corpuscles, followed by ecchymoses of various sizes. The prognosis is generally favorable in idiopathic purpura, but where extensive bleeding from mucous surfaces occurs, or necrobiosis with repeated exacerbations, a very unfavorable one should be given. I think the treatment was excellent in this case, although most cases are but little influenced by medicines where hygienic defects exist. When the diet and mode of life are changed, improvement and recovery usually follow. The remedy most highly recommended is the aromatic sulphuric acid.

Dr. Brandeis believes that coal oil, like chlorate of potash, salicylic and pyrogallic acids in excess, disintegrates the blood corpuscles, prevents oxygenation; serious results may follow its ingestion. In this case the coal oil was absorbed, caused disintegration of blood corpuscles, and ecchymoses resulted. Usually hematuria occurs. It makes no difference whether the blood is injured by noxious matter taken into the stomach, or by bad hygiene. He was astonished that ergot should have seemed to have any effect. He believes the good accomplished was due to the iron. During the occupation of Bosnia by the Austrians, in 1878, scurvy prevailed to an alarming extent. The surgeon in charge claimed that he had cured every case by means of the administration of onions.

I. N. BLOOM, M. D.,
Secretary.

LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, February 25, 1887, H. A. Cottell, M. D., President, in the chair.

Dr. J. A. Stucky, of Lexington, Ky., read the report of a case of foreign body in the nose, and its removal through the naso-pharynx.*

Dr. W. L. Rodman read an essay on Amputations in Shock. (See this issue, page 293.)

Discussion: Dr. Cartledge said the question of when to amputate in certain cases was one of much importance. Baron Larrey was one of the greatest advocates of early amputations. Others of equal prominence had spoken against it. The statistics of Smith, spoken of by Dr. Rodman, are somewhat misleading, as has been stated by Hamilton. Most modern writers state that it is best not to amputate during shock. Erichsen says we may do so if there is a mangled limb, for this may act so as to keep up the shock. There is no doubt that railroad injuries must be studied as a class. In many cases there is much shock. Reaction may never come on.

Dr. Godfrey said: In studying these cases we must weigh carefully the degree of shock present. The questions we ask ourselves are, How much shock has the patient? How much will he have? How long will it last? We may suspect the mangled limb of keeping up the shock. McCloud advocated immediate amputation. John Hunter advocated in all cases secondary amputation. If these great observers reached different results from their experience, it follows that different results are due no doubt to the effect of shock on different individual cases.

Dr. Vance was glad to note that the essayist laid down no positive rules for guidance. He thought that peculiar conditions existent in such cases should guide us as to the method best to pursue. Stimulants administered by the attendant before the surgeon arrives will often go far toward deciding against immediate operation. We should also take into consideration the surroundings of the patient before laying out our course.

Dr. von Donhoff said the question of shock was largely based on the mental condition of the patient. This is often impossible to decide. Shock produces a temporary paralysis. This was why old surgeons, before the time of anesthetics, advocated always amputation during the stage of shock. During shock the heart is weak, the hemorrhage is slight. The mental condition of the individual certainly plays an important part in guiding our course. To lay down special rules, with the expectation that they would meet all cases, is folly. In railroad injuries the hemorrhage is usually slight, and we should be guided as to amputation by the condition of the wound and the amount of reaction established, giving due weight to the influence of the restoratives which are generally given in these cases.

Dr. Smith said the mode in which the injury was received often had much to do with the amount of shock. If the injury was a slow crushing it would be great. In gunshot wound the terror is less, and thus the danger to life is not so immediate. Shock is an inhibition of the heart's action, and undoubtedly due largely to the mental condition of the patient.

Dr. Stucky said it had been his rule to amputate in railroad accidents if the heart was strong enough to force the blood into the radial artery, and he thinks his experience has justified this action.

Dr. Roberts said he recently amputated, one hour after injury. An arm, a leg, and the skull were all broken. He gave ether; this strengthened the pulse; then he removed forearm and leg, and reaction was well established. Internal complications should not be overlooked, and will often be our guide. Has removed both legs during shock with good result.

Dr. Rodman: Larrey has said that amputation was the remedy for shock, thus showing that his cases were extreme. Hodgen, of St. Louis, deprecated very strongly the use of alcohol in shock. The paralysis in shock is more a paralysis of the sympathetic system. There is no doubt that the mental conditions often keep up shock. The thermometer should always have influence in determining these cases. We get information from it that can not be obtained in any other way. Usually, if the thermometer is 96°, do not amputate, be the surroundings of the patient what they may.

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*American Practitioner and News, Vol. III, No. 15. p. 137.

Hemorrhage is sometimes great in railroad accidents, consisting of an oozing that can not be stopped.

J. M. RAY, M. D.,
Secretary.

Reviews and Bibliography.

Drug Eruptions. A Clinical Study of the Irritant Effects of Drugs upon the Skin. By Prince A. Morrow, A. M., M. D., Clinical Professor of Venereal Diseases, formerly Clinical Lecturer on Dermatology in the University of the City of New York, etc. 8vo, pp. 198. New York: William Wood & Co. 1887.

This book is one of the most important of recent contributions to dermatological literature. The bibliography alone shows the amount of labor necessary to the preparation of such a treatise. It includes over five hundred names, with full reference to published articles. The contents are presented in a most attractive form. No attempt is made at classification, the drugs being discussed in alphabetical order, an arrangement that will be duly appreciated by the general practitioner. The author treats briefly the history of the subject, from 1777, when Torry first called attention to eruption from the use of drugs, to the present time.

The general characteristics, definition, etiology, pathogenesis, diagnosis, prophylaxis, treatment, and tests for the recognition of drugs in the urine are treated of in full. Dr. Morrow does not believe in the old theories as to the causation of drug eruptions, that they are due to the impairment of the integrity of the eliminating organs, the elective affinity of drugs for the constituent elements of the glands, or that they are due to changes in the blood. He is of the opinion that the great majority are due to idiosyncrasy, and that "the only correct interpretation of the physiological predisposition known as idiosyncrasy as a determining cause of drug eruptions is based upon the recognition of their neurotic character." He has elsewhere (Journal Cutaneous and Venereal Diseases, May, 1885) put this proposition in the form of a syllogism: "Drug eruptions are determined by idiosyncrasies. Idiosyncrasies are neuroses, therefore drug eruptions are neuroses."

An outline of the ten pages devoted to the consideration of the cutaneous disturbances caused by cinchona and quinin sulphate will illustrate the author's masterly manner of work. Only five cases of eruptions caused by these drugs were reported prior to 1870, and these by one observer; but Dr. Morrow, in the New York Medical Journal, March, 1880, gave the result of his examination of sixty cases of quinine eruption published within the previous ten years. These drugs may occasion many different forms of eruptions, such as the erythematous, urticarial, papular and vesicular petechial, bullous, and gangrenous, all of which are fully discussed. As to pathogeny, quinine "exerts a direct irritant effect through the blood upon the vaso-motor and trophic centers, causing disturbances of the capillary circulation, of which the eruption is but an outgrowth." Under the head of differential diagnosis he says: "The quinine exanthem derives its chief clinical importance from its close resembance to the rash of scarlatina." Following these observations are the tests for the recognition of the cinchona alkaloids in the urine, the treatment of these eruptions and their prophylaxis.

The specialist's library would be incomplete without this admirable book; and the general practitioner, as a manual for ready reference, will find it to be invaluable.

J. C. M'G.

A Clinical Manual of the Diseases of the Ear. By Laurence Turnbull, M.D., Ph. G., Aural Surgeon to the Jefferson Medical College Hospital, etc. With a colored lithographic plate and numerous illustrations on wood. Second revised edition. Philadelphia: J. B. Lippincott & Co. 1887. Price, $3.

The first edition of this Manual appeared in 1872, and it would seem that the revolution in the pathology, diagnosis, and treatment of ear diseases, which has taken place during the past fifteen years, should have called for a complete revision of the work. Instead, however, the author is content to reissue it unchanged, with the addition of one hundred or more pages of new matter.

The present want in a manual of diseases of the ear is facts concisely stated. Much of the matter here contained could be expunged without injury to the work.

The first four hundred pages, for reasons above stated, may be passed without further comment. The remainder is devoted largely to a study of deaf-mutism, especially the methods of teaching this class of unfortunates. In this part of the work the seat of deafness in deaf mutes is not made the subject of special study, notwithstanding the fact that just now it is claiming the attention of otologists as a subject of great scientific interest and therapeutic significance. Proper treatment can often do much for middle-ear deafness, especially in children, and it is clearly the duty of authors to modify the too prevalent notion that all children born deaf, or becoming so early in life, are deaf from disease of the labyrinth or acoustic nerve. From an extended study, Roosa shows that a large percentage of this class of sufferers are deaf from middle-ear disease, and thus offer chances of improvement by modern methods of treatment.

In enumerating the causes of ear diseases, the author places heredity first and malaria second. What influences diseases of the throat and nose may have in the production of these maladies he does not state. Inflammation starting in the nose and throat is the cause of over ninety per cent of all cases of ear disease seen in practice.

Waiving the discussion of heredity in this place, we see no reason why malaria should be placed second in the list of causes of ear disease.

Pomeroy has shown by his own observations, and those of otologists in various parts of the country, that malaria plays a more important part in aggravating and keeping up existing ear diseases than as a prime cause. I have never seen a case of ear disease that could be traced positively to the malarial poison as the primary or exciting cause.

The uses of cocaine in ear disease and in operations are made the subject of favorable comment. Peroxide of hydrogen, with its uses in suppurative middle-ear disease, is brought to our notice in a series of well-reported illustrative cases; but in view of the recent brilliant achievements of the otologist by means of this drug in the malady named, the author might well have devoted more space to its study. It is unquestionably the most valuable therapeutic agent brought to the notice of the profession since the introduction of boracic acid by Bezold.

Much of the additional matter under notice consists of case reports, not a few of which, though interesting, are set forth with too liberal an allowance of space.

Taken as a whole, the book may be looked upon as a repository of useful information; but it is to be hoped that before another edition appears the learned author may find time to give the subject-matter the proper sifting and the much-needed rearrangement.

J. M. R.

Correspondence.

PARIS LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The French, who are supposed to be in the van of other nations in matters of science and cultivation, are lamentably backward in all that concerns hygiene, particularly as regards drinking-water and drainage, the latter of which is notoriously defective in all the large cities throughout the country. In Paris, however, great improvements have been effected, and others are in progress, so that, as expressed by the Municipal Council, Paris will soon not be second to any other city in the world. As for potable water, great improvements are being effected even in this direction, not a day too soon, as the inhabitants have learned to their cost, for, as admitted by a commission, the members of which are medico-scientists of some eminence, that although Paris has nothing to envy of other great cities in respect to washing and watering its streets, yet the drinking-water does not offer the guarantee exacted by hygiene and by progress. That drinking-water is the principal if not the only means by which such diseases as typhoid fever, cholera, and dysentery are propagated has been abundantly proved. A very striking example of this was lately given by Dr. Brouardel, who was called upon to report on an epidemic of typhoid fever that had occurred a short time previously at Pierrefonds, near Compiegne, where twenty of twenty-three Parisians, occupying three houses for the season, were affected with the disease. Four of one family succumbed. Among the sixteen other persons who escaped eight were seriously affected, and the other eight slightly so. On inquiry the origin of the epidemic was distinctly traced to the contamination of the drinking-water by the contents of cesspools in the neighborhood of the wells from whence the water was procured. In this water the typhoidic germ was discovered. This germ is a bacillus already known, studied, and cultivated. A specimen taken from the wells was brought to Paris, where they have succeeded in obtaining its multiplication under the form of colonies in the midst of gelatine. As a counter-proof, a puncture was made by a fine trocar into the liver of a typhoid patient from which some blood was drawn. The same bacillus was seen in the blood and cultivated in gelatine. In examining the locality where the infectious germ was discovered, it was found that the sides of the cesspools containing the dejections were not water-tight. They were established on a sandy layer, permeable, superposed on a layer of impermeable argile on which flowed the sheet of water of the wells. It is worthy of remark that bacilli are much more numerous in the infiltrations of porous layers, so that an apparent purification is effected, and, the water being very limpid, its nocenousness is completely concealed. From this it may be concluded that the filtering of the sewerage waters by the soil, in depriving them of organic matters in suspension, may leave in them extremely dangerous principles, and the author of the report suggests that the knowledge of this fact affords a serious lesson which the Council of Hygiene should take into account in the employment of measures in contemplation for the salubrity of Paris.

Several instances have very recently occurred in which limited epidemics of typhoid fever were traced to the water used by the inhabitants for drinking purposes, and, in a paper communicated to the Academy of Medicine at its last meeting, Dr. Thoinot reported that on the 7th of March last he drew up, at two meters deep below the bank of the Seine, above the bridge of Ivry just outside Paris, a liter of water. This water was divided into two equal parts, the one was put aside, and to the other was added twenty drops of pure carbolic acid, which, at this dose, did not prevent the proliferation of the typhic bacillus, but arrested the multiplication of a great number of other germs. The method employed to isolate the typhic bacillus was that of well-known cultures of gelatino-peptone on plates. Some of these plates were prepared with water containing carbolic acid, and others with pure water. On one of the former, microscopic examination revealed the typhic bacillus. The isolated and cultivated bacilli presented the following characters: (1) Great mobility, great agility in a drop of water freely colored with gentian violet. (2) Sporulation at one of the extremities. (3) Absolute discoloration by Gramme's method. All these characters, described by Eberth and Gaffiky, of Germany, closely studied and extended in France by Drs. Chantemesse and Widal, are now regarded as distinctive of the pathogenic bacillus of typhoid fever. That typhoid fever is produced by a germ entering the organism from without, nobody would have any doubt. It is sufficient to study the lesions and the symptoms of this malady to see that it constitutes a type of infectious disease. As to the manner in which infection takes place, the predominant opinion is that it is effected through drinking-water. The following example, furnished by Drs. Chantemesse and Widal in their report referred to above, would seem to be a striking proof in corroboration of the above theory. The barracks occupied by a regiment of firemen, and which had its water-supply from the Vanne, the source of which is several miles away from Paris, typhoid fever prevails in an infinitely small proportion. In the barracks furnished by the Marne the proportion has been seventeen per cent of the effective strength. Thus it may be seen that the populations are protected against typhoid fever while they drink spring water, but while they drink of river water, which is always more or less contaminated, they pay a large tribute to the disease. In order to avoid the risk of being infected by typhoid fever, the authors have shown that it is sufficient to boil all potable water, the effect of which is to destroy the typhoidic or any other germs it may contain. The measure is easy enough, but it is questionable whether it can be introduced into practice.

Dr. Poncet, in a recent communication to the Surgical Society of Paris on the etiology of sebaceous cysts, stated that all sebaceous cysts are engendered by a micrococcus situated in the free epithelium in the fatty substance. When this substance is treated by ether, one obtains elements which, colored according to the method of Gramme, with the aqueous tincture of gentian, render visible on the surface of each epithelium a large quantity of microbes. After having thoroughly washed the preparation, one also finds free micrococci detached from the epithelium. The author concludes that sebaceous cysts are produced by parasites proceeding from the skin, which secrete the fatty substance and are then enveloped by it. When the sides of the cyst are embryonic, one finds these micrococci in the nuclei and white globules. According to the same author, this mode of production applies to all sebaceous cysts, whatever be their origin.

PARIS, April 8, 1887.

Translations.

THE INFLUENCE OF AROMATIC SUBSTANCES ON THE NASAL MUCOUS MEMBRANE.—(Von Ziemssen.) The long-continued or permanent influence of exhalations of the vapor of aromatic substances, such as fresh hay, coffee, pepper, tobacco, flowers, perfumeries, balsam, oil of peppermint, turpentine, or oil of fir, on the nasal mucous membrane leads to swelling of the membrane, and may lead to impairment of the respiration, as also to disturbance of the circulation in the neighboring vascular supply, to asthmatic troubles, to fullness of the head, with consequent reddening of the nose externally, at times also to irritation of the conjunctiva, and other phenomena. Local treatment in such cases is without lasting result so long as exposure to the injurious influences continues. For therapeutical purposes, aromatic substances are to be employed only with care and prudence.—*Memorabilien.*

EFFECTS OF IRRITATION OF THE ANTERIOR WALL OF THE NECK.—At the Academy of Sciences, April 4th, Dr. Brown-Séquard reported the following as the results of some experiments made by him on the various effects of irritation of the anterior wall of the neck. An incision, even light, of the skin of the neck over the neighborhood of the larynx is sufficient to cause a disappearance of the sensibility in the two anterior layers of the cervical region; the analgesia may even extend further. There is no need, then, of exceptional courage to enable one to cut the throat. The skin of the anterior cervical region has only to be cut in order to produce at once a diminution of sensibility to painful influence in the whole anterior half of the neck. Very often the analgesia is complete in the parts which cover the skin and trachea. The maximum of power for the production of general anesthesia exists where the filaments of the superior laryngeal nerves ramify. If surgeons are able to perform tracheotomy without pain, it is not, as they believe, because the sensibility is reduced by asphyxia in the large proportion of cases; it is altogether because the incision of the skin produces by inhibition the diminution or loss of sensibility. Medical jurists sometimes find death in cases of strangulation, notwithstanding a constriction insufficient to prevent the access of air. This is because the larynx and the trachea are capable, under the influence of mechanical irritation, of producing inhibition of the heart, of the respiration, and of all the cerebral activities. The effects of this irritation are analogous to puncture of the bulb. In both cases there are, in fact, loss of consciousness, diminution of the circulatory and respiratory movements, and arrest of interchange between the tissues and the blood.—*Le Progrès Médical.*

PHYSIOLOGICAL MECHANISM OF DEATH BY ELECTRICITY.—At the same meeting M. d'Arsonval reported on the mechanism of death by electricity. Electricity produces death in two ways: (1) By direct action, in which the disruptive effects of the discharge act mechanically in altering the tissues. (2) By a reflex or indirect action. In this, by the action on the nervous centers, an unlimited variety of effects are produced, described by Brown-Séquard under the name of inhibition and dynamogeny. In the first case death is complete; in the second the individual may be restored to life by artificial respiration. The static discharge is not certainly fatal except when the discharges are well localized and strike directly upon the bulb. With a battery of four hundred and twenty volts death is produced only by means of frequent and prolonged interruptions. Death is due mainly to the tetanic state produced by the current. The Gramme machine is dangerous only through its extra interruption current. The degree of danger relates for the most part to the duration of the discharge.

The practical conclusion of these researches is, that in electrical works artificial respiration ought to be resorted to with every person struck down by the current.

The Treatment of Bright's Disease.—(Mariano Semmola.) The patient must be supplied with nourishment the most easily assimilable, a food that when introduced into the stomach requires the least preparation and alteration. The function of the skin is to be exalted systematically. The author advocated this a quarter of a century ago, and it fills him with lively satisfaction, after years of favorable experience, to be able to confirm the dictum then announced. The assimilation and oxidation of albuminoid substances introduced into the system is to be promoted in every possible way. These three indications may be perfectly met if a series of means bound together in perfect harmony be faithfully employed, and care taken to restrain the patient from the smallest excess.

The medication of Bright's disease during the long period of its curability consists of the following:

1. *Exclusive Milk Diet.* The ordinary nitrogenous food, and still more the burdening with food rich in nitrogen, must be excluded as of great disadvantage to the patient. The experience and observations of the author have in this respect been confirmed by a great number of observers, such as Gubler, Lépine, Parkes, Senator, etc. Milk has a wonderful action in Bright's disease, and that not at all in consequence of its diuretic properties, as has been well established by a number of learned clinicians. Milk has a diuretic action simply because it contains a large amount of water, so that it is quite natural, when one drinks two or three liters of milk within the twenty-four hours, the mass of urine should be increased through the elimination of this mass of water. If, however, a person drinks a like amount of pure water with ordinary food, the same favorable result is not observed, notwithstanding the amount of urine is increased. Milk acts, with patients suffering with Bright's disease, as a typical nutrient material whose chemical composition betrays high assimilative qualities, and must be regarded as an already half-prepared nutrient material.

The milk diet must be continued for a great length of time, and only with extraordinary reluctance may we venture to ascertain whether flesh or eggs will be tolerated.

2. Methodic and repeated applications of dry friction, massage, the Scottish douche, and frequently also the production of considerable transpiration through the skin by means of the stove. Cold baths are contra-indicated. They are badly borne by the patient always, even in the beginning of the disease, because in fact the cold applications are acting upon a half-dead skin that is incapable of an abundant reaction, which under the conditions is indispensable. The author insists that the slightest influence of cold upon the skin of the patients, which shows an incredibly excessive sensibility toward the slightest change of temperature, renders their condition worse, and the wrapping in woolen sheets hitherto practiced is inadequate to arouse a satisfactory reaction. To supply this defect, forced muscular exercise has been prescribed. This the author regards as injurious to the patient, because it quickly exhausts him by rendering the loss of strength greater than can be replaced by the assimilable food taken, and this exhaustion must determine the degree to which the skin reaction

can extend, for the latter must bear a direct relation to the intensity of the vital energy of the entire organism.

3. The patient must be advised to live in a temperate, dry, and uniform medium. This is a therapeutic condition which is perfected by the measures previously recommended, which as yet have not been sufficiently regarded.

The sufferer from this disease in changeable climates, in the winter-time at least, should not expose himself in the open air, if he is to be treated with success. Systematic massage and gymnastics must be practiced in his room, where the temperature must be kept at from 18° to 20° C. It must be kept constantly in sight that the patient with Bright's disease is sick, as every other patient is.

As the author has had occasion in all his works to repeat, the sensibility of the skin in Bright's disease is altogether exceptional. It is, so to speak, one of the most delicate meteorological apparatuses, a genuine and very sensitive thermo-hygrometer. This is well known to the intelligent patient, and yet only with reluctance will he observe the hygienic measures prescribed for him.

4. The prescribing of increasing doses of iodide and chloride of sodium according to the degree of toleration.

5. When, after the lapse of two or at the most three weeks, the albumen has not altogether disappeared from the urine, and especially if there is no longer a trace of anasarca, he prefers, instead of the iodide of sodium, either the phosphate of soda or repeated small doses of the hypophosphite of soda or lime. Without pretending to understand the method of their action, the author has constantly observed a considerably improved assimilation of albuminoids under their use.

6. Methodical inhalation of oxygen the author has practiced since 1867, and the great advantage of this treatment he, with many other observers, is able to confirm. The albumen sometimes completely disappears in a few days, while the morphological elements may continue to be found for many days in the urine, and this fact furnishes the most valuable evidence of the hematogenous or dyscrasive origin of Bright's disease.

7. As regards the administration of astringents in the treatment of Bright's disease, they must be rejected, since they are not only useless but actually injurious.—*Memorabilien.*

Abstracts and Selections.

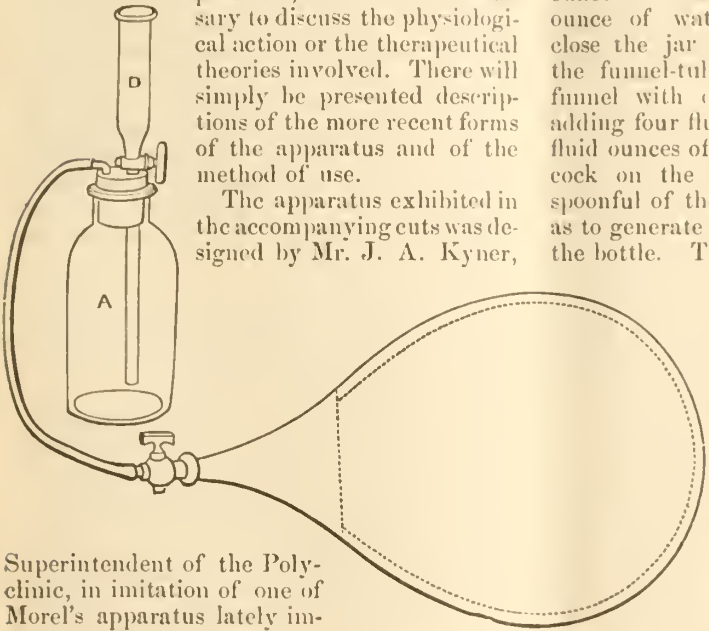
The Administration of Gaseous Enemata.—A large share of professional and public attention has quite recently been directed to the administration of gaseous enemata for the treatment of blood poisoning and of affections of the respiratory passages. The object in view is to supply to the venous circulation an antiseptic, such as hydrogen sulphide, in sufficient doses to be effective; a result impossible when supplied directly to the arterial current, a plan which would poison the patient. Hydrogen sulphide inhaled in far less than sufficient doses would suffocate the patient. Taken by the stomach, it would produce other serious results. Administered by the bowels, however, and entering the venous current already deteriorated by organic refuse, it is quickly eliminated by the respiratory tract, which thus becomes subjected to its beneficial local antiseptic effects without subjecting the system at large to injury, as when thrown into the arterial current. In other words, the parasite is killed without killing the individual. Its beneficial effects in phthisis are explained by the action of the gas on the suppurative and septic surfaces, and not by any influence on the bacillus tuberculosis; the consumption proper, the exhaustion, being due to the suppuration and to the consequent septicemia, and not immediately to the bacillus, which, while it produces the destruction of tissue, does not produce the morbid phenomena. The method of administration utilizes the discovery announced by Bernard in 1857, that toxic materials introduced into the economy through an organ at a distance from the arterial system could not penetrate into the arterial system because it is eliminated before that system can be reached. Volatile substances are eliminated by the pulmonary alveoli.

On July 12, 1886, Dr. Bergeon communicated to the French Academy of Sciences the results of several years' investigation into the method, and Professor Cornil also presented later a paper on the subject. The forms of apparatus at present in use are based upon designs furnished by Dr. V. Morel, of Lyons.

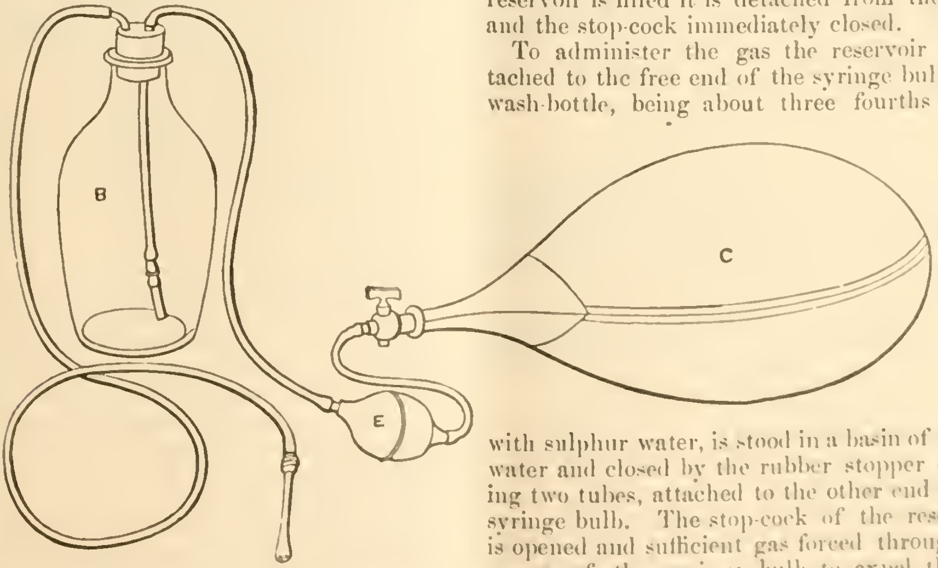
Various antiseptic gases and vapors have been tried, but abandoned on account of local irritant action, but a mixture of carbon dioxide (carbonic-acid gas) and hydrogen sulphide (sulphureted hydrogen) is entirely harmless when properly used and completely deprived of atmospheric air.

Since the object of this article is entirely practical, it will not be necessary to discuss the physiological action or the therapeutical theories involved. There will simply be presented descriptions of the more recent forms of the apparatus and of the method of use.

The apparatus exhibited in the accompanying cuts was designed by Mr. J. A. Kyner, Superintendent of the Polyclinic, in imitation of one of Morel's apparatus lately imported by Dr. J. Solis-Cohen.



The apparatus as constructed by Mr. Kyner is now in use at the hospital of the University of Pennsylvania, German Hospital, Home for Consumptives, and by quite a number of private practitioners, and the form is now manufactured by Messrs James W. Queen & Co., of this city.



The apparatus consists of a generator, a reservoir, a bulb apparatus for injection, and a vessel for holding the sulphur water. To generate the carbon dioxide, put one avoirdupois ounce of sodium bicarbonate and one fluid ounce of water into the wide-mouthed jar; close the jar with a rubber stopper carrying the funnel-tube and delivery-tube. Fill the funnel with dilute sulphuric acid, made by adding four fluid drams of strong acid to four fluid ounces of water. By means of the stop-cock on the funnel-tube, allow about a teaspoonful of the acid to run into the bottle so as to generate sufficient gas to expel the air in the bottle. Then having rolled the reservoir tightly to exclude all air, connect it by means of the rubber hose to the generator, and continue the slow addition of the acid from the funnel-tube until the reservoir is filled. The quantities above given for charging the generator will be found about sufficient to fill the reservoir. Dr. Bergeon recommends that the acid be prepared at the bedside; but Mr. Kyner has used it entirely successfully after being kept six hours in a heavy vulcanized rubber bag such as is now furnished; but Dr. Bergeon used a lighter bag, which had not the power of resisting diffusion. This probably explains the difference in results. When the reservoir is filled it is detached from the hose and the stop-cock immediately closed.

To administer the gas the reservoir is attached to the free end of the syringe bulb, the wash-bottle, being about three fourths filled with sulphur water, is stood in a basin of warm water and closed by the rubber stopper carrying two tubes, attached to the other end of the syringe bulb. The stop-cock of the reservoir is opened and sufficient gas forced through by means of the syringe bulb to expel the air from the wash-bottle and tubes; the hard-rubber vaginal syringe pipe is then well inserted into the rectum, and the gas pumped very slowly. From one to six quarts is the amount administered, according to circumstances. From four to five minutes should be allowed for the injection of each quart. The patient should lie on the right side, or on the back. Should any difficulty occur from the escape of gas from the rectum, the patient's legs should be extended so as to compress the sphincter.

It is the universal statement of patients that the injection can be given more satisfactorily and with less uneasiness when the bowels have been emptied. Two injections a day should be given. Since the injection interferes slightly with digestion, it should be given either one hour before or three hours after a meal. No pain except that of slight distension of the bowel is felt unless air is present in the apparatus. The natural sulphur waters used in this city are the Red Sulphur Springs of Virginia and the Mount Clemmens water of Michigan. The latter is to be preferred, since it contains about ten times the available sulphur compounds. The same portion has been used satisfactorily for three consecutive injections, and still smelled strongly of the gas. Although artificial waters have been said to cause pain, the following formulæ have been used without any difference of effect from natural waters having been noticed by the patient:

$$\left.\begin{array}{l}\text{Sodium sulphide, pure....}\\ \text{Sodium chloride..........}\end{array}\right\}\ \bar{\text{a}}\bar{\text{a}}\ \text{grs. v;}$$
Water............................ f℥ xxij. M.

This is the formula first used at the Philadelphia Hospital. The hydrogen sulphide is formed by the action of the carbonic acid on the sodium sulphide substantially according to the following reaction:

$$Na_2S+H_2CO_3=Na_2CO_3+H_2S.$$

When pure sodium sulphide is not attainable, the *potassium sulphuretum* or corresponding sodium compound may be used. These must be used in rather larger proportion, and produce an objectionable white precipitate of sulphur.

When a stronger sulphur water is desired than that produced by the above formula, the following may be used:

Sodium sulphide, pure,......... grs. x;
Dilute hyd'chl. acid, U. S. P. ♏ xxx;
Water............................ f℥ xxij.

Mr. Kyner, who has proposed this formula, prefers to keep the liquid on hand after use, and freshen it up for subsequent use by additional quantities of sodium sulphide and dilute hydrochloric acid. This freshening up should be done whenever the liquid ceases to smell of the hydrogen sulphide. A liquid so kept seems to acquire more nearly the characteristic odor of the natural water. If the sulphur water is of sufficient strength, the patient's breath will, in about five minutes after beginning the administration, darken lead-acetate paper, and will continue to smell of gas for an hour after the process is discontinued. It may be well to remark that metals, especially silver, are readily tarnished by the sulphur gases.

The method has, up to the present, been used upon about one hundred cases in this city without any untoward effects, so far as known, except in one or two instances, one of which was due to a leaky bag, and another to incorrect administration.

It is, perhaps, too soon to decide positively on the therapeutic value of the new method, but it seems in the experience in this city to have the special quality of diminishing night-sweats and improving the appetite.

In Bergeon's cases, the trifling expectorations of those apparently practically cured continued to contain bacilli. This fact may be taken both for an indication that the immediate danger in phthisis is less from the bacilli than from the septicemia which they set up, and as an indication that this protective treatment, when successful, should not be discontinued until the general healthiness of the tissues is sufficiently restored to resist the further development and sustenance of the bacillus tuberculosis.—*The Polyclinic.*

An Experimental Research upon Rabies.—Dr. Harold C. Ernst, having received two rabbits which had been inoculated in Pasteur's laboratory, undertook to prove experimentally the following propositions:

1. Is there a specific virus in the brains and cords of rabbits inoculated with Pasteur's material and after his methods?

2. Does the treatment by drying, proposed by him, modify the strength of this virus? And, finally,

3. Does injection with such a "modified virus" produce an immunity against an inoculation (or bite) with virus of full strength?

His results with the experiments in detail appear in the April number of the American Journal of the Medical Sciences. Dr. Ernst began the investigation as a skeptic, but his experiments seem to justify a change from skepticism to a belief in at least a portion of Pasteur's assertions.

The conclusions which Ernst draws from his experimental work he summarizes as follows:

I. There exists in the cords and brains of animals inoculated in Pasteur's laboratory a *specific virus* capable of the production of similar symptoms through a long series of animals.

II. That these symptoms are produced with absolute certainty when the method of inoculation is by trephining the skull and injection under the dura mater, with less certainty when the inoculation is by subcutaneous injection.

III. That the strength of this virus is lessened when the cords containing it are removed from the animals and placed in a dry atmosphere at an even temperature.

IV. That the symptoms produced by the inoculation of this virus only appear after a certain period of incubation, distinctly shorter when the inoculation has been done by trephining than when done by subcutaneous injection.

V. That injections of the virus, modified in strength by drying, and in the manner prescribed by Pasteur, exert a very marked protective influence against an inoculation with virus of full strength.

VI. That a very moderate degree of heat destroys the power of the virus entirely, while prolonged freezing does not injure it.

As will be seen, all of these conclusions are in complete accord with the declarations of Pasteur. Their importance lies in the fact that they were reached at a distance from him, and by work entirely separated from any personal influence or bias.

The Action of Sulphuric Ether on the Peripheral Nervous System.—Dr. H. P. Bowditch, in the April number of the American Journal of the Medical Sciences, summarizes as follows the principal results of a series of researches upon this subject which were carried on under his direction in the physiological laboratory of Harvard University:

1. The ordinary effect of electrical stimulation of the recurrent laryngeal nerves of dogs is to cause constriction of the glottis, but if the animal is thoroughly etherized dilatation may be produced.

2. If the animal is partially etherized the effect of the stimulation will vary with the strength of the current, a weak irritation causing dilatation, and a stronger irritation causing constriction of the glottis.

3. The more complete the etherization the greater is the intensity of the current necessary to produce constriction.

4. A similar "ether effect" may be observed when the sciatic nerve of the frog is stimulated, the ordinary extension of the leg and abduction of the toes giving place, under the influence of this drug, to flexion and adduction. It is, however, always possible to produce the ordinary effects by increasing the intensity of the stimulation; and, on the other hand, it is possible, by using very feeble stimuli, to produce without etherization the same effects which occur on the application of stronger stimuli to animals under the influence of the drug.

5. This "ether effect" on frogs may be observed, both when the ether solution is introduced by cutaneous absorption and when it is applied locally to the nerve below the point of stimulation. Hence the most reasonable explanation of the phenomenon is that the drug, by diminishing the conducting power of the nerve, causes a strong irritation applied to the nerve to become a weak irritation when it reaches the muscles.

6. This explanation can not be applied to the phenomenon as exhibited by the recurrent laryngeal nerve of the dog, for without ether feeble irritations do not produce dilatation, and with complete etherization strong stimuli do not produce constriction of the glottis.

Intestinal Concretions resembling Fine Sand, and Originating in Cells from the Banana.—Dr. N. L. Bates describes, in the April number of the American Journal of the Medical Sciences, some peculiar intestinal concretions, resembling fine black sand, observed in three cases which at the time proved very puzzling to himself as well as to a number of able chemists, microscopists, and physicians, to whom they had been shown from time to time. They were finally identified as the cells of the banana fruit. Dr. Bates is disposed to regard a prolonged stay in the intestines as necessary for the development of the deep color, hard, sharp and gritty character, high specific gravity, and siliceous contents of these cells; and when thus developed they are no more innocent in the bowel than would be a corresponding quantity of sharp sand.

The Direct Action of Atropine, Homatropine, Hyoscine, Hyoscyamine, and Daturine on the Heart of the Dog, Terrapin, and Frog.—Dr. H. G. Beyer, from an experimental study of the action of these drugs, which appears in the April number of the American Journal of the Medical Sciences, reaches the following conclusions:

1. Atropine, homatropine, hyoscine, hyoscyamine, and daturine are stimulants of the sympathetic nerve apparatus of the heart.

2. The vaso-motor portion of this nerve apparatus is affected by comparatively small doses of these drugs, giving rise to either acceleration or augmentation in the heart's action.

3. The inhibitory portion is excited by large doses only, giving rise to slowing of the heart's action, and finally causing diastolic arrest.

4. The muscular substance of the heart is

greatly excited by atropine, homatropine, and daturine, and only slightly so by hyoscine and hyoscyamine.

5. The vaso-motor nerves and their ganglia are the first to become exhausted, the inhibitory nerves and their ganglia are the next, and the muscular substance is exhausted last of all.

6. The slowing of the heart's action which follows the administration of these drugs in the intact animal, may be sufficiently accounted for by their influence on the inhibitory nerves and ganglia of the heart itself.

7. The acceleration following the administration of certain doses of these drugs can not be sufficiently accounted for by their action on the accelerator nerves and ganglia within the heart, but is principally due to causes resident outside this organ.

Rumex Acetosa in Cancer.—Dr. James Lamb, of Aurora, Ind., writes, in the Journal of the American Medical Association:

I have recently seen several communications in the journals in regard to the rumex acetosa or small-leafed sorrel. I have also had some experience with the herb that may be of some interest to the profession.

In 1849, directly after I began practicing medicine, an old gentleman, a very warm friend, proposed to give me a secret remedy for cancer, which he said he had obtained from a brother, who was a graduate of Jefferson Medical College, and then practicing in one of the interior towns of Pennsylvania. He said it would cure every time without fail, and he brought out an old worn sheet of unruled foolscap paper, written over one half of its surface, minutely detailing the season in which the broad-leafed, or horse-sorrel, was to be gathered and prepared. According to the receipt the directions must be followed out most scrupulously or the efficiency of the remedy would be impaired. The herb was to be gathered at a certain stage of development, bruised in a wedgewood or glass mortar, the juice expressed out on a pewter plate, dried in the shade to consistence of honey, then spread on chamois skin or buckskin, and, after abrading slightly the surface of the diseased part, to be applied daily till the diseased tissue separated from the sound, when the dead mass could be easily removed. After this the best dressing is a weak solution of the medicine in water.

The different species of rumex have the same chemical constituents, and the broad-leafed sorrel not being easily obtained in the locality where I then was, I gathered a quantity of the small-leafed, or sheep-sorrel, at the proper time, to wit, when the bloom began to drop, and bruised it in an iron mortar and expressed the juice out on a common delfware plate, as I was not the owner of a pewter one, and when evaporation had brought it to the proper consistence I put it up in a gallipot. In the first case of epithelioma that came under my care I used it, and was successful. I have used it frequently since, both successfully and unsuccessfully, and I feel safe in saying that the diagnosis, in some at least of the successful cases, was correct, as it was confirmed by those high in authority and by the microscope. I think it is fair to admit that it is one of the best and safest escharotics we can use in such cases; and when our patients are not willing to submit to removal by the knife, when the glands are not involved, and the disease has not encroached too much on the underlying tissues, we can safely use this in preference to any other escharotic. Of course the use of any of this class of remedies can not be compared to immediate removal by surgical procedure.

Papayotin in Fissures of the Tongue.—Professor Schwimmer (*Wiener Med. Wochenschrift*) reports excellent results from the use of papayotin in fissures of the tongue, after chromic acid, iodoform, and nitrate of silver had failed. The papayotin was administered in the following form:

Papayotin	1 to 2 parts;
Distilled water....	āā...10 parts.
Glycerine...........	

This solution is to be applied with a camel's-hair brush, from two to six times a day, the tongue having been previously well dried. There is no maceration, as would be supposed, but the mixture stops the pain and seems to cause a renewal of the epithelium. Schwimmer reports twenty-five cases, some of several years' duration; and complete cure was effected in all except one, which was syphilitic, though specific treatment gave us no good result. But in this case papayotin ameliorated the condition of the tongue.—*Journal American Medical Association.*

Santal in Renal Colic.—The *Journal de Medecine* published the following note, by Dr. Philbert, on the use of santal in nephritic colic. Having already suffered from this painful disease, the author resolved to try the above remedy upon himself. An opportunity soon presented itself. Toward the end of March, about 4 o'clock in the afternoon, he experienced the usual symptoms, and hurried home as quickly as possible. He took four capsules of santal, and got into a bath. The pain was much less severe than usual, and did not last so long; in about an hour it ceased entirely.

Dr. Philbert attributes this result in great measure to the santal, while allowing that the bath also did good. For six months he had no occasion to renew his experiment. At the end of that time he was again seized with frequent and imperious desire to pass water. Having no doubt as to the diagnosis, he immediately took four capsules of santal, and awaited the onset of the familiar pain in the kidneys. It did not come on, however, and nothing but a "stitch" in the left lumbar region made him aware that the calculus was passing off on that side. Dr. Philbert does not undertake to explain the mode of action of the santal in this case; he is content with pointing out its beneficial effects.—*British Medical Journal.*

ANTIFEBRIN.—Eisenhart in the clinic of Ziemssen, in Munich, has used antifebrin, and reports as follows: The number of cases observed was thirty. The doses given were from four to eight grains, given in powder and solution, by rectal and anal use. In a case of erysipelas a dose of eight grains was vomited when given by the mouth; when given by injection it was retained.

In general the drug was well borne; half of the patients had a profuse perspiration following, and an exanthem occurred in one case.

Cases of typhoid, treated with antifebrin, had an easy course. The influence of the drug was generally manifested two hours after it had been taken. After a dose of four grains the temperature sank six times from one tenth to one degree, thirteen times from one to two degrees, fifteen times from two to three degrees, six times from three to four degrees, and three times more than four degrees. After a dose of eight grains a depression of temperature of one tenth to one degree occurred three times; from two to three degrees, seven times; from three to four degrees, twice; from three to more than four degrees, twice. In a few cases only was this effect wanting.

In comparison with antipyrin it was found that one fourth as much antifebrin as antipyrin was required for a given effect. The conclusions of the observer were that in doses of four to eight grains antifebrin was a very valuable febrifuge, reasonably certain of success.—*Deutsche Medizinal Zeitung.*

CONTAGION IN FEBRILE EXANTHEMATA.—Most writers are silent on the point as to the exact moment when the eruptive fevers are contagious, and the general public opinion is that they are all catching during the period of convalescence. Dr. Girard, of Marseilles, says this idea must have come from physicians originally, as the people get all their medical ideas first from the doctors, directly or indirectly. He himself had held this notion; but, after a careful study of the matter in some one hundred and fifteen cases, first he found that it was the reverse of true, and, following up the subject for some years, he cites a large number of facts to prove that *contagion in these fevers always takes place at the very beginning of the disease,* and he found that the incubation takes, as a rule, fourteen days. Cases are given of varicella, measles, and smallpox to prove this statement.

Dr. Girard now tells his patients, when they want to send their other children who may not be attacked out to the country, "No; it is useless. If they are to have it, they have got it already from the one who is ill." In regard to measles, he also does not believe that children get it a second time, for it will be found, on examination of such attacks, that the eruption is not the same, the marks are not of the characteristic half moon shape, nor are the usual oculo-nasal catarrh symptoms found in such cases. He gives a very striking case to prove that contagion takes place at the beginning: it was a family who had several children ill with varicella, and the pustules were not yet dry, when a relation having two healthy children arrived on a visit. The doctor was asked his advice, and, being firmly persuaded that the disease was only catching at first, he permitted the children to remain and play with the others without the slightest danger to them, or either of them, taking the complaint. This is, of course, a negative fact, but, taken as coming after a large number of very positive ones, it seems to confirm the idea that these fevers are contagious from the first.—*Ibid.*

CAFFEINE AS A DIURETIC.—In three recent papers (1886) Bronner, V. Schroeder, and Langgaard deny the truth of the statement set forth in 1884 by Dujardin-Beaumetz, Riegel, and Becher, that caffeine acts on the heart like digitalis. They assert that it has no such action, not even lessening the frequency of the pulse when marked diuresis is induced. V. Schroeder, from experiments on animals, has arrived at the following conclusions: (1) Caffeine, like strychnia, stimulates the nervous system and through the vaso-motor centers causes contraction of the renal vessels, thus tending to decrease the flow of urine. (2) It stimulates the renal epithelium itself (not through the nervous system), and thus tends greatly to increase the urine flow. (3) It has no direct action on the heart, any resulting rise of blood pressure being due to its vaso-motor stimulation. Langgaard has come to quite similar conclusions. In Bronner's paper is incorporated Kussmaul's therapeutic experience of caffeine. He recommends it in anemic headache in doses of one and a half grains. He finds it apt to lose its effect if continuously administered, but that after two days' cessation it acts as powerfully as before. The amount used by him varied from seven to twenty-two grains daily, given in divided doses during the morning only lest sleeplessness should ensue. (D. J. Leech, in Med. Chron., Jan., 1887.)

The above conclusions of V. Schroeder are quite in accord with clinical experience; it is this uncertainty of caffeine's action which has greatly led to its disuse of late. Should V. Schroeder be correct, caffeine will no doubt come rapidly into vogue again, for its stimulating action on the vaso-motor system can in all probability easily be controlled by nitrite of sodium. It has been the present writer's constant practice during the last two years to combine this latter drug with digitalis in cases of overworked heart occurring with chronic Bright's disease. He has thus been enabled to push the digitalis as far as required without increasing the tension of the radial pulse, and indeed, where necessary, the pulse tension has been reduced. The combination of digitalis, caffeine, and nitrite of sodium in varying proportions, or of any two of these, should therefore have a great future before them in the treatment of cardiac and renal disease.

THE IMMEDIATE CURE OF WHOOPING-COUGH. Dr. Mohn, of Christiana, communicates to his Norwegian *confrères* a new method of treatment for whooping-cough, for which he claims remarkable results, the disease being cured in a single night. His plan consists simply in the thorough disinfection, by means of burning sulphur, of the rooms, clothing, etc., used by the affected children. The children are taken out of the room, the bedding, furniture, and playthings are exposed, and two ounces of sulphur are burned for every one hundred cubic feet of space in the room. After the room has been thus exposed to the sulphurous acid fumes the affected children are allowed to return and occupy it. As a result of this treatment it is claimed that attacks of coughing are immediately alleviated, and often entirely disappear. *Revue des Sc. Med.*

HELENINE IN DIPHTHERIA.—Helenine, obtained from the root of the elecampane, is a concrete, volatile, fatty substance, in white crystals of an aromatic odor and a bitter taste. It is insoluble in water, but soluble in alcohol and ether. Dr. Juan B. Obiol (*La Crónica Médica*), on account of the well-known antiseptic properties of helenine, has tried it in diphtheria. He applied powdered camphor to the patches of false membrane, and dressed with a solution of helenine in oil of sweet almonds. This treatment is aided by the administration of helenine internally in doses of a grain and a half for six-year-old children, being careful to avoid causing vomiting. The dressings must be made daily by the physician, and, when the disease is treated from the first appearance, twenty-four hours is generally sufficient to bring about a cure. At the end of five or six days of invasion, it will be necessary to continue the treatment for eight or nine days. Five or six days later the treatment ceases to be useful. Albuminuria does not occur, constipation is the rule.—*Nouveaux Remèdes.*

AN INGENIOUS TEST FOR VISUAL MALINGERING.—In a large factory a workman in wielding his hammer carelessly allowed it to slip from his hand. It flew half across the room, striking a workman in the left eye. The man brought suit in the courts, and although an eminent oculist, after an examination, declared that no apparent injury could be detected, claimed that his eyesight was destroyed, and refused all offers of compromise. As the law requires owners of factories to pay all claims for damages resulting from injury during work, the owner, though confident that the man was shamming, had about made up his mind that he would be compelled to pay the claim. On the day of the trial a further test was made. The oculist for the defense had a pair of glasses made, the right eye being of red and the left of ordinary glass. He brought, also, a black card with a sentence written on it in green ink. The plaintiff was ordered to put on the glasses and read the sentence, which he readily did, thus proving himself a perjurer, as the sound right eye, being fitted with a red glass, could not distinguish the writing—the combination of green and red producing black, which on a black ground was, of course, not visible—and the left eye, which he claimed was blind, was the one with which the reading had to be done. *Medical Record.*

ARSENIC IN THE TREATMENT OF MALIGNANT TUMORS. — Dr. F. Kobel gives an interesting communication in the *Mittheilungen aus der Chir. Klinik zu Tübingen*, Bd, ii., Heft. i., on the treatment of non-operable malignant tumors by arsenic. The results are so far successful that, bearing in mind the incurable nature of these affections, a further trial on the same lines is desirable. Further encouragement is given thereto by the fact that other observers have obtained a certain amount of success by this method of treatment. Fifty-nine cases are reported, of which number two thirds were males and one third females. No explanation of this inverted proportion of the sexes affected is given. The treatment consisted in the administration of Fowler's solution along with some bitter tincture or with iron. Five drops of Fowler's solution were given as the initial dose, and every two or three days this was increased by one drop, until forty to forty-five drops were taken in the day, when the dose was gradually diminished. If symptoms of arsenical poisoning manifested themselves the medicine was omitted for some days. Parenchymatous injections were also employed of Fowler's solution and distilled water in equal parts, about two drops at first, gradually increased to eight or ten. It is pointed out that in order to determine whether this treatment is useless or successful, it must be steadily persevered in for at least two months. Out of the fifty-nine cases seventeen were cured (!). In the successful cases the treatment was continued for periods of from one to six months. Of some of the cases that recovered it is said that operation was out of the question, and death must otherwise have taken place within a measurable time.

NAPHTHALIN is a remedy which does not seem to have the general use which its merits deserve. In certain forms of diarrhea it seems particularly serviceable. In the case of a young man in the University Hospital who had had for many months a troublesome diarrhea, except when upon a most restricted diet, naphthalin, five grains, in capsule, five or six times a day, relieved the condition in a couple of weeks. It seems specially adapted to cases with flatulent dyspepsia and intestinal indigestion. In two cases of large bowel trouble it did no good. In the diarrhea of phthisis it is useful, and Dr. Peabody, of New York, tells me that he has found it very advantageous in typhoid fever. A case of painful dyspepsia, which had resisted the usual remedies, yielded in a short time to the capsules. It may be administered also in from five to fifteen-grain doses with charcoal and glycerine.—*Prof. Wm. Osler, Canada Medical and Surgical Journal.*

THE CARE OF THE SUBSCAPULAR NERVES IN REMOVING ENLARGED GLANDS FROM THE AXILLA.—Prof. Kuster directs attention to the fact that, in cleaning out the axilla after extirpating a cancerous breast, great care should be taken not to injure the subscapular nerves supplying the subscapular muscle, the teres major and the latissimus dorsi. He had seen cases where these nerves were injured, in which the movements of the arm were so restricted that the patient was unable to fasten her clothing. Since he has paid proper attention to the protection of these nerves he had not seen such results following the operation.—*Centralblatt für Chirurgie.*

SALICYLATE OF LITHIA IN ACUTE ARTICULAR RHEUMATISM.—Dr. Vulpian states that salicylate of lithia is more efficacious than salicylate of soda in cases of acute and progressive subacute articular rheumatism. It also has some effect in chronic cases when a certain number of the joints are still deformed, swollen, and painful. Four to four and a half grams, and even five grams, may be given in the day. If the improvement is not lasting, fifty centigrams may be added to the daily dose. Sometimes, when the dose is increased to five or five and a half grams, symptoms of intolerance begin to be shown. Salicylate of lithia may be given dissolved in water, in powder, or in unleavened bread, during or after meals, in doses of fifty centigrams. The physiological effects of the drug are headache, giddiness, and deafness.—*British Medical Journal.*

SURGICAL INTERFERENCE IN CANCER.—The learned editor of the New York Medical Record concludes a very able paper in reference to surgical interference in cancer, as follows: (1) Cancer is essentially a local disease, and can be cured by operation in spite of recurrence. (2) Operation, when it does not cure, prolongs life and diminishes the total amount of suffering. (3) Operations should be repeated as often as there is any chance of removing recurrent growths. (4) The earlier and the more thoroughly the operation is performed the better. (5) The disease, when it recurs, is generally of a milder type than that of the original growth, less painful, and less exhausting. (6) Antiseptic surgery makes more radical operations possible, with better results than formerly obtained.

ACONITINE IN NEURALGIA.—Crystallized aconitine, when properly used, is one of the most powerful remedies in certain kinds of neuralgia. It is most valuable in so-called "essential" neuralgia, especially facial and trigeminal neuralgia. It is best given in the form of granules containg a quarter of a milligram of crystalized aconitine, or crystallized nitrate of aconitine, the doses being the same. An interval of four hours should be allowed between the doses, the total quantity of the drug administered in the twenty-four hours not exceeding one milligram. There are forms of obstinate facial neuralgia, however, such as the intermittent variety, which resist the action of aconitine alone, and these likewise prove refractory to quinine alone. In such cases, success may be achieved by combining the two drugs. This may be done in pills as follows: Hydrobromate of quinine, 10 centigrams; crystallized aconitine, ¼ milligram. One pill containing the above quantity of quinine and aconitine to be taken every four or five hours. *British Medical Journal.*

THE SUBCUTANEOUS INJECTION OF THE YELLOW OXIDE OF MERCURY IN SYPHILIS.—Szadek has made clinical studies with this mode of treatment in the clinic for dermatology at Kiew in the treatment of secondary syphilis. He made thirty-five injections in six patients, and selected the gluteal region, where he injected the drug deeply beneath the muscular fasciæ. His formula was the following:

Hydrarg. oxydat. flavi	gr. xv;
Gummi Arabici.	gr. xx;
Aquæ destillatæ	ʒ viss.

Fiat emulsio.

His conclusions from these observations were that:

1. The local reaction was very little, even less than after the use of calomel; the patient generally complained of dull pain, which ceased in a few hours; the glutcal region was not tender on pressure in two or three days after injection; hemorrhage never followed these injections.
2. In no case did an abscess form, either at the point of injection or in its vicinity; genererally a small amount of infiltration was observed; in one case only, on the third day after five injections, a painless node was felt in the muscle, which soon disappeared.
3. The examination of the urine showed, after each injection, the presence of mercury.

A CURE FOR DIABETES.—In a paper recently read by M. Martineau before the Société de Therapeutique of Paris, he claims to have treated diabetes with invariably good results, for ten years past, by means of a solution of carbonate of lithium and arseniate of sodium in aerated water, which is taken not only with meals but whenever the patient is thirsty. He claims by these means to have cured sixty-seven diabetic patients who have been under his care.

TO STOP TOOTHACHE.—Gesell-Fels makes the following mixture, which is an oily liquid, and introduced in the tooth cavity has proved very effective:

Camphor	gr. lxxv;
Chloral hydrati	gr. lxxv;
Cocaini muriat	gr. xv.

TREATMENT OF COLDS.—Dr. J. H. Whelan states that he has found a combination of belladonna, quinine, and arsenic almost specific in aborting common colds, if commenced in the early stage of the affection, while it is still confined to the nose and pharynx. The formula which he uses is the following:

Quiniæ sulphatis	gr. xviij;
Liquoris arsenicalis	♏ xij;
Liquoris atropinæ	♏ j;
Extracti gentianæ	gr. xx;

Pulveris gummi acaciæ, q. s., ut fiant pilulæ xii.

Sig: One every three, four, or six hours, according to circumstances.

Dr. Whelan states that at starting one pill should be taken every three or four hours, and later on six hours; and he believes that if a catarrhal subject has a box of these pills always at hand, he will almost invariably succeed in aborting a cold.

He does not profess to explain how his remedy acts, unless it be as a powerful nervine and general tonic.—*Therapeutic Gazette.*

TREATMENT OF SCIATICA.—Dr. Metcalf, of New York, says that no prescription for sciatica has ever equaled in efficacy the following: Tinct. aconit. rad., tinct. colchic. sem., tinct. belladonna, āā ʒ j. M. Sig: Dose, six drops every six hours. He also uses triturate tablets, each containing three drops of the following: Tincture of aconite root, tincture of seeds of colchicum, tincture of belladona, tincture of actea racemosa—equal parts by volume. Dose, one every four or eight hours.—*Journal American Medical Association.*

TYPHO-MALARIAL FEVER.—Dr. J. Edward Squire, in a study of typho-malarial fever, which appears in the April number of the American Journal of the Medical Sciences, maintains that this disease is not a subdivision of enteric fever, but a form of malarial fever, and defines it as "a malarial fever which has assumed that adynamic type which is present in enteric fever." He gives a vivid sketch of its history, symptoms, pathology, diagnosis, and treatment.

EXCISION OF THE ENTIRE CLAVICLE.—Dr. J. Sloan reports, in the April number of the American Journal of the Medical Sciences, a successful case of excision of the entire clavicle for central carcinoma in a boy aged fourteen years. Four months later there was evidence of the return of the cancer in the line of the cicatrix and in the glands of the neck.

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. III. SATURDAY, MAY 14, 1887. No. 10.

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D. T. SMITH, M. D., - - - - Editors

A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

Books for review, and all communications relating to the columns of the journal, should be addressed to the EDITORS OF THE AMERICAN PRACTITIONER AND NEWS, Louisville, Ky.

Subscriptions and advertisements received, specimen copies and bound volumes for sale by the undersigned, to whom remittances may be sent by postal money order, bank check, or registered letter. Address

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THE PHILOSOPHY OF CIRCUMCISION.

As medical philosophers have about worn off the edge of ingenuity in trying to explain the cause of the existing relative numbers of the sexes, immunity from contagious diseases, and some other questions of the kind, which have been passed on to the "next" in much the same condition as before, it is clearly the duty of somebody to supply them with a new theme.

Among the curious phenomena of biology is the fact that while among all animals low in the scale the males have the genital organs retained entirely within the body, the higher mammalia have the testicles constantly external, and possess the power of extruding the penis for purposes of copulation. For this there must be some sufficient reason.

We may put it in this form:

1. A shorter circuit of nerve communication between the end organs and the discharging centers (with certain collateral influences, such as greater and constant heat, and perhaps freer blood-supply), renders sexual organs inclosed in the body of an animal more highly sensitive to the influences which operate to cause seminal discharge than are such organs in animals who carry them externally, and thus, in addition to the longer circuit of nerve connection, have them exposed to a varying temperature and to constant friction.

2. In proportion to the increase of the cutaneous nerve-supply manifested by each species of animal in the advancing scale, it became advantageous to the race to have the reflex sensensibility of the genital organs diminished. All that is necessary for the male fish when he would fecundate the eggs of the female, is to be placed for a time over them in the water. The cold-blooded reptile, with limited cutaneous sensibility, is in no danger of being led to excess. The bird, with high heat of body, may be permitted to retain his genital organs within the body, because his horny bill and coat of feathers are not favorable media for arousing in the female the sexual emotion. If the bird were as sensitive to peripheral stimulation as man, and should still retain the great bodily heat and the peculiar arrangement of his generative apparatus, this class of animals would soon perish from excess. Some of the higher and more intelligent animals, as the horse, sometimes practice self-abuse; and when we come to the monkey, whose tactile sensibility and general power of ideation are of a comparatively high order, sexual excesses are carried to a great extreme. With this tribe, then, the transition was required by natural selection to be rapid and radical. Consequently, in the monkeys we no longer find the virile organ retained within the body with preservation of delicate sensibility thereby, but the sheath has grown to the organ entirely out to the glans. That this condition should obtain in the human race is obviously necessary for its perpetuation.

But some of the early races in various parts of the world seem to have deemed the natural changes in this respect not sufficiently rapid, and consequently adopted the custom of removing the prepuce so as to still further diminish the sensibility of the male organ of procreation.

It may have been first practiced as a war measure, or as a matter of hygiene, but in the long run it probably found its best warrant in the facility it gave to sexual restraint.

The greatest possibility of fallacy in the argument lies in the fact, that we can only assume that cryptorchism favors excitability; but here the factors of heat and shorter circuit of communication between the end organs and reflex centers obtain so far as the testicles are concerned. There are no records of any experiments made for the elucidation of this point; and in the nature of things satisfactory experiments can hardly be made, for the reason that the imperfect development of cryptorchids would vitiate comparisons. In cryptorchids, as a rule, the fault of development is not restricted to the position of the testicles, but involes the nerve-supply also.

GOOD RESULTS.

Of the many phrases that are misused and abused from time to time, it is probable that none suffers more than the one that heads this article. If only a tithe of the instances where the application of remedies to diseases made by a kind of arithmetical permutation, for a while reported as giving "good results" and then thrown aside, were presented in a tabulated form before the eyes of the most credulous follower of Esculapius, he would stand appalled.

The use of profane language is condemned in the interests of good grammar, by those who consider profanity mere unmeaning nonsense, if only because it conveys no idea and habituates the mind to a slipshod style of expression and a loose mode of thought. "Good effects" and "good results" are to medicine what the idle oath is to conversation. Such expressions are the arch enemy of accuracy. Ask one who has been getting the usual "good results" from the latest thing in therapeutics, how many days he has shortened the average length of the disease he is treating, how much and in what way he has modified its course, how many patients he has saved by the treatment that would otherwise have died, and his ready answer is, that he don't know, but the remedy has given "good results."

Talk to him of statistics, and he will speak of them with contempt. He has no respect for statistics; they are all unreliable. He wants nothing but "good results."

Now, what are the "good results" but his own very loose statistics? What he justly condemns is not statistics, strictly speaking; it does not relate to the status of the matter, and is not, therefore, entitled to the name.

We have often thought it due to medical science that some medical journal should be devoted altogether to things that have failed. Indeed, two or three of that kind might have their pages fairly well filled, and yet contain only carefully selected failures.

Medicine has made and is making marvelous strides, but we can easily imagine an age of the of the world so dominated by right reason, by freedom from interest and prejudice, so permeated with the true spirit of philosophy as to look back upon us of this day with something of the regard with which we look back upon the people of the Stone Age.

Let us bind "good results" with chains for a thousand years at least, as the one "that letteth," and hasten thereby the advent of the medical millennium.

Notes and Queries.

Editors American Practitioner and News:

I have a case on hand which is a perplexing one. The patient, a man thirty-eight years of age, is suffering from nasal catarrh and a periodical erythema of the end of the nose, on the outer part or the skin. Inside, or at the verge of the anterior nares, small vesicles appear simultaneously with the erythema. This is accompanied by some pain, burning, and itching, which disappear with the erythema. The attacks are apt to come on abruptly, and, as far as I can discover, from no particular cause. The man is a tinner.

Now, the questions I would like to ask, are:

1. The probable cause of erythema and the vesicles?

2. The treatment?

E. J. KEMPF, M. D.

JASPER, IND., April 27, 1887.

Editors American Practitioner and News:

Allow me to report the following case: Mrs. Mary Rager, age forty-three years, married, mother of six children, oldest twenty-three years, youngest, if living, would be eleven years, has, she says, always been more or less irregular in her menstruation; especially has this been so since the birth of her last child. In October, 1882, she began to have violent and repeated hemorrhages, which continued until she became so emaciated as to be unable to turn herself in bed without help. On March 18, 1887, I visited her in company with Dr. J. O. McReynolds and Dr. A. T. McKinney, and removed a uterine pediculated fibroid weighing twenty-one and a fourth ounces, and measuring six and a half inches long and three and a half inches in diameter. It completely filled the vagina, and was supported by a pedicle one and a half inches in diameter. The patient is now well and able to attend to household duties.

J. M. ZARECOR, M. D.

Editors American Practitioner and News:

I have recently noted in your journal the answers of several eminent physicians to the question, "Of what value is the discovery of Gonococcus?" Believing the germ theory as regards gonorrhea to be fully established, I have been trying to find some drug that would act as a parasiticide and at the same time allay inflammation, secure immunity from stricture in after-life, and make a cure sooner than the older methods commonly in use. I find that morphia in strong solution is the remedy I have been searching for. This opinion is based upon the results in six cases treated during the acute stage. I have never tried it in any other stage. Morphia seems to be destructive to the gonococcus, and will cure a case of acute gonorrhea in from twenty-four to forty-eight hours. I use the following formula: ℞ Morphia sulph., ʒj; aquæ rosæ, ℥ ij. M. Inject four or five times a day, filling the urethra well, and retaining each injection twenty minutes. This will allay all pain, act as a local anesthetic, and thereby arrest painful micturitions. I have used the above in six cases in succession, and nothing else.

J. M. TINSLEY, M. D.

HINESBORO, ILL., May 8, 1887.

ANTISEPTIC MIDWIFERY.—Dr. H. J. Garrigues, Obstetric Surgeon to the New York Maternity Hospital, writes that the description given by our New York correspondent (issue of April 16th) of the antiseptic measures practiced in the Hospital should be modified in certain points. Previous to delivery the patient is not washed from head to foot with the solution of bichloride; but such parts only are so washed as are liable to be touched during delivery.

Relative to the douching of the vagina and womb Dr. Garrigues says: "It is with me a chief point never to allow fingers nor instruments to be introduced into the genital canal after the birth of the child in normal labors, nor do we use any kind of injections in such cases. All my antiseptic preventive measures, after childbirth, are directed to the outer surface of the body."

SUDDEN DEATH.—"I fear you are too late," said the husband, as he hurried me to the apartment where his wife, from sudden failure of the heart's action, was lying insensible, and, as the nurse informed me, "dying." It was impossible to administer by the mouth a restorative, so without delay I injected hypodermically twenty drops of ether, sp. gr. 0.720, and, as the improvement was not as quick as I desired, forthwith twenty drops more. To the complete astonishment and great delight of the friends, consciousness and strength rapidly returned.

The sudden deaths which have so lately thrilled the public mind, more especially the death of Lord Iddesleigh, in London, and Mr. Christopher Bushell here, have influenced me to send you the above record, not as the proclamation of a new discovery, but as a suggestion—a suggestion in connection with the alarming newspaper reports which usually run somewhat thus: "Mr. —— suddenly became ill, when, sinking, he was supported by his friend. Dr. ——, who happened to be present, was most assiduous in his attention, but at last pronounced life extinct." Should it not be impressed on the public that the easiest mode in which respiration can be carried on is when the body is extended at full length, not lying on the back, but with the inclination toward the prone position? Nature throws down to assist the encumbered circulation; the officious kindness of indiscretion and ignorance supports the the fainting sufferer. Again, would it not be well, in these times of frequent sudden deaths from weakened hearts, that each medical man should have in his possession, ready for immediate use, his hypodermic syringe case, with its little bottle filled with ether? Would it not be well, too, that the possessor of a weak heart, or, better still, the friend who accompanies him, should also have the ether and syringe ready for instant employment? Ladies with neuralgia practice hypodermic injections of morphia by the advice and under the direction of physicians. This I would condemn. But the friend of a valuable life, the tenure of whose leasehold is uncertain through the possession of a weakened, or flabby, or a fatty heart, might well be instructed in the use of the subcutaneous injection of ether. More than one example might be adduced to show that the immediate stimulant might rouse the flagging pulse-throb; and then, instead of the announcement that "life was extinct," one might read that after the injection the appalling symptoms quickly passed away, and what appeared to be approaching death gave place to the renewed energy of life, with all its usefulness.—*Lancet.*

New Indications for Hysterectomy.—In a recent number of the *Centralblatt für Chirurgie* we find an abstract of an article by Professor B. S. Schultze, of Jena, published in the *Deutsche Medicinische Wochenschrift*, in which he describes a case of supra-vaginal amputation of the uterus done on account of the decomposition of a placenta retained in a portion of the uterine cavity, so shut off from the remainder that, the cervix being very narrow, the mass could not be removed by the ordinary means. Schultze argued that the uterus contained a source of systemic infection not otherwise to be got rid of, that it was the only source of systemic infection present, and that, if not interfered with, it was sure to give rise to the infection. Happily, his patient recovered. The indication may be said to have been legitimate, although novel.

Not so much can be said of a series of sixteen more or less complete hysterectomies performed by a Cologne surgeon, Herr Frank, whose account, entitled *Ueber extra-peritoneale Uterus-exstirpation*, published in the *Archiv für Gynäkologie*, is made the subject of criticism by Dr. C. H. Stratz, in an article headed *Ueber Furor operativus*, contained in a recent issue of the *Centralblatt für Gynäkologie.* While Dr. Stratz credits the editor of the *Archiv* with freedom from partisanship, he feels that in the interest of humanity the Cologne hysterectomist's enormities ought to be shown up, and so do we. It seems that only five of the operations were done for cancer, while the procedure was resorted to four times for endometritis, three times for retroflexion or retroversion with fixation, twice for prolapse (complicated in one instance with endometritis), once for "pruritus uterinus," and once for neuralgia and retention of urine! We should like to know what the Liverpool committee in the Imlach case would think of such a record as this.

Herr Frank seems not to have been over-particular as to niceties of diagnosis, if the statement is true that in one instance he was led to perform the operation because, "besides the pains in the sacrum, the patient quite precisely indicated the situation of the uterus as the point from which the wholly unbearable pains proceeded." But in view of the variety of lesions that he evidently looks upon as indicating the operation, it is hardly to be wondered at that he should have considered precision of diagnosis a work of supererogation. We may suggest to those who are anxious to obtain the views of their professional brethren that they endeavor to ascertain if there is any abnormal state of the genitalia in women that some enthusiast does not consider an indication for removal of the uterus, the ovary, the oviduct, or all three.—*New York Medical Journal.*

The Longevity of the "Friends."—The Friends are noted for their simple modes of life and their close observance of all the laws of hygiene and of health, and their vital statistics speak louder than a voice of flame for closer attention to public health. Of the 229 Friends who died last year in Great Britain and Ireland, only 22 were under five years of age; between five and ten years were 5 deaths; between ten and twenty years, 9; from twenty to thirty years the deaths numbered 18; from thirty to forty years, 16; from forty to fifty years, 22; from fifty to sixty years, 23; from sixty to seventy years, 51; from seventy to eighty years, 74; from eighty to ninety years, 69; from ninety to one hundred years, 10. The low infantile mortality and the large percentage of deaths at great ages are remarkable even for the Society of Friends.—*Medical and Surgical Reporter.*

Treatment of Phthisis by Sulphureted Hydrogen. — Such is the evidence which I have been able to gather from the experience of others in regard to Bergeon's treatment, and it is sufficient to indicate that we are in the presence of a very important improvement of, or rather a very important addition to, medical therapeutics. It is of vital importance to decide the mode in which the treatment acts. The experiments of Dujardin-Beaumetz show that the carbonic acid is not the active agent, and that the good achieved is produced by the sulphureted hydrogen. Reasons already assigned are sufficient to make it improbable that the good achieved is the result of any parasiticidal influence.

All clinical experience indicates that heredity is in the production of consumption a vastly more important factor than is any poison introduced into the body from without. Only a portion of the medical profession believes in the active contagiousness of phthisis, while the experience of any life-insurance company affords a firm foundation for the belief in the heredity of the disease. If the bacilli really are the exciting cause of phthisis, the susceptibility to their action must be a more important factor in the production of phthisis than are the bacilli themselves. There is at present, then, no proof that it in any way increases the direct resistive powers of the individual action of the bacilli. In some acute and chronic diseases of the skin, local applications of sulphur act with the most astonishing rapidity and effectiveness, and the thought naturally suggests itself that in Bergeon's treatment of consumption good is achieved by the action of the sulphureted hydrogen upon the inflamed lung tissue; or, in other words, that the plan of treatment is simply a means of making an application of sulphur to the pulmonic mucous membrane and tissue. This thought is not merely of speculative interest, but also of practical importance, for it suggests that the method of treatment will prove of value not only in consumption, but in various forms of chronic or subacute affections of the lungs. This is confirmed by what experience we have. Cases of asthma and pulmonic catarrhs have already been quoted in this article as having been published in the French journals, in which the remedy has proven of the greatest service.

I saw in the Philadelphia Hospital one case of asthma with chronic catarrh and emphysema in which the administration of the rectal injections had been followed by the most pronounced relief. In another case of catarrhal pneumonia with an enormous amount of purulent expectoration, and general symptoms so bad that a fatal prognosis had been given, the administration of the remedy was at once followed by rapid lessening and even cessation in the purulent secretion, and in a short time by convalescence.

As an important illustrative case, I cite one from my own recent experience. Mrs. L—, over seventy years of age, received a severe contusion of the side in a railway accident, which was followed by pleurisy, in turn followed by bronchial pneumonia, with an enormous expectoration. She had been under my care for nearly three months, and, though often temporarily benefited by various remedies, had failed to properly respond to the most careful treatment that I could give her. The expectoration remained exceedingly profuse, amounting sometimes to a pint in the course of twenty-four hours, although very irregular. The general symptoms were very bad; sinking spells were frequent and alarming. I finally told the family that she would die, unless the gaseous injections would do something for her. Within forty-eight hours after the use of the gas the expectoration notably decreased, the expression of the patient's face changed entirely, and at present writing, fifteen days after the use of the sulphureted hydrogen, she is expectorating not one sixth the quantity she did formerly, has regained the natural expression of her face and color of her skin, as well as her appetite, and a fair amount of strength, and seems to be convalescent. A notable fact in this case is that the injections of gas relieve in a few minutes the sense of suffocation and sinking the patient formerly felt in the mornings. The secretion of urine was sensibly increased. As tested on three occasions, the subnormal temperature rose 0.4° F. within the half hour after the exhibition of the gas either by mouth or rectum.—*Dr. H. C. Wood, Therapeutic Gazette.*

Charcot.—George Augustus Sala says: Dr. Charcot is surely one of the most ingenious of the medical mankind. He is a specialist in hysteria and hypnotic cases, and I read that, having satisfied himself as to the practicability of transferring paralysis, nervous contractions, and cataleptic symptoms from one patient to another, he is now about to extend his experiments to hysterical dumbness. A female patient affected in this manner was placed back to back with a woman who had been for a long time cataleptic. By means of the magnet the dumbness was transferred from one patient to the other with the same regularity as marked the experiments in paralysis. By continuing these tests Dr. Charcot hopes to be able to completely restore speech to the tongue-tied patients.—*Medical and Surgical Reporter.*

Inequality of Pupils in Healthy Persons.—From an examination of one hundred and thirty-four healthy recruits, Dr. G. S. Ivanoff, of Kïrïlov, came (*Vratch*, No. vii, 1887, p. 162) to the following conclusions: (1) Equal or symmetrical pupils, as well as equal or symmetrical halves of the face, are met with but seldom, the former only in nine per cent of the persons examined, and the latter only in 1.2 per cent. (2) The inequality or asymmetry is probably dependent upon an asymmetrical development of the cerebral hemisphere. (3) In 54.5 per cent of persons, the left pupil, and in 73.9 per cent the left side of the face is larger than the right one.—*British Medical Journal.*

The Stomach-pump Treatment of Gastric Catarrh.—Dr. J. J. McKone, of the Garfield Hospital, Washington, sends us a brief account of a case illustrating the value of this method of treatment. The patient, a woman, thirty years old, had had her trouble for a long time, and had been treated with various remedies without relief being afforded. A siphon was then used, and afterward the stomach-pump, half a gallon of warm water being employed daily, with almost immediate relief.—*New York Medical Journal.*

How to Give Castor Oil.—Dr. Field, in a recent book, "Evacuant Medication," gives the following formula as useful in administering castor oil, especially in dysentery and enteritis, when purgation and a healing and tonic influence is required:

Ol. terebinth	gtt. lxxx;
Ol. cinnamon	♏v;
Ol. ricini	ʒ v;
Mucil. acac	q. s.;
Syr. simpl.	q. s.;
Aq. puræ, q. s. ad	℥ ij.

M. Sig: Shake thoroughly. One teaspoonful, repeated *p. r. n.*

The Re-appearance of a Notable.—We notice that the "Busy Practitioner" has recently been brought forth from his well-merited retirement and is again doing yeoman service in the pages of some of our contemporaries. In view of the great age, the arduous labors and the present senile debility of this much abused but respectable old gentleman, we would suggest that he be reverently laid upon the shelf for all time, and that some younger creation of the reviewer's brain be promoted to his responsible post of duty.—*The Pittsburgh Medical Review.*

Dr. Henry Leffmann, editor of the Polyclinic (P. O. box 791, Philadelphia), desires to obtain results of the new treatment of pulmonary consumption and phthisis by gaseous enemata, for publication in the Polyclinic. The correct therapeutic value of this method can only be arrived at by the collection of statistics, and he therefore requests any one who has administered the gas to communicate the result to him, the formula used, and any special information that may be useful.

The British Medical Association meets this year in Dublin. The president of the meeting will be Dr. John T. Banks, Regius Professor of Physics in the University of Dublin. The Rev. Sam'l Haughton, who is looked upon as the embodiment of the ideal cultivated Irishman, will deliver an address on Medicine. Addresses will also be delivered by Professors Gairdner and Hamilton.

The Association of Genito-urinary Surgeons.—The first annual meeting will be held at the Laurel House, Lakewood, N. J., May 17 and 18, 1887. The officers for 1887 are: Temporary Chairman, Dr. E. L. Keyes, of New York; Temporary Secretary, Dr. R. W. Taylor, of New York; Committee of Organization, Dr. A. T. Cabot, of Boston, Dr. J. N. Hyde, of Chicago, Dr. C. H. Mastin, of Mobile, Dr. F. R. Sturgis, of New York, Dr. J. White, of Philadelphia, together with the Temporary Chairman and Secretary *ex officio*.

Dr. Daniel G. Brinton, who has been for a number of years editor and publisher of the Medical and Surgical Reporter and the Quarterly Compendium of Medical Science, severed his connection with those journals on the 1st of May, 1887. It is not his intention to retire permanently from the arena of medical journalism.

Itching Piles.—The Chicago Medical Times recommends the following:

℞	Tinct. capsicum............	1 part;
	Spts. turpentine............	2 parts;
	Spts. camphor...............	3 parts;
	Decolorized iodine.........	3 parts. M.

Alfred Meadows, M. D., F. R. C. P., of London, the obstetrician to St. Mary's Hospital, author of "Manual of Midwifery," and translator of Bernutz and Goupil's "Clinical Memoirs on the Diseases of Women, died suddenly on Tuesday morning, April 19th, in the fifty-fifth year of his age.

The American Climatological Association will hold its fourth annual meeting in Baltimore, on Tuesday and Wednesday, May 31st and June 1st.

Dr. Moritz Schuppert, a well-known surgeon of New Orleans, La., died in that city on May 2d, aged sixty-nine years.

Trephining in Prehistoric Times.—The Museum of Anthropology, in Paris, contains ten almost perfect crania, and fragments of sixty others, illustrating the fact that the men of the polished Stone Age used to trephine with considerable frequency. As nearly all the holes were in the motor areas, it seems probable that prehistoric man only trephined for traumatic epilepsy.—*Maryland Medical Journal.*

Pains of Menstruation.—For the relief of the violent pains that in some women precede the menstrual flow, Dr. Menière, of Paris, gives a warm water enema, containing thirty grains of chloral and thirty grains of bromide of potassium. For young women one half of the above quantities should be prescribed.

A Good Dentifrice.—Precipitated chalk forms the best basis for a tooth-powder, to the base of which may be added pulv. saponis and ol. eucalypt., a dram of each; and, if there is no objection to the taste, half a dram of carbolic acid.—*Lancet.*

President Cleveland has appointed Dr. George M. Sternberg, U. S. A., to investigate the merits of inoculation for the prevention of yellow fever, as practiced in Mexico and Brazil.

A writer in an exchange says that in experiences in Colorado and Utah he never saw an Indian with a cold. He concludes that it is our hot rooms that give us colds.

It is reported (*L'Union Médicale*) that a case of opium narcosis was relieved by nitrite of amyl after belladonna had failed, and the patient was almost dying.

The State Medical Society of Arkansas will hold its twelfth annual meeting in Little Rock, on Wednesday, Thursday, and Friday, June 1st, 2d, and 3d.

The Ontario Medical Association will hold its seventh annual meeting in Toronto, on Wednesday and Thursday, June 8th and 9th.

In Italy cremation by electricity is to be tested.

INEBRIETY.—The Council of the English Society for the Study and Cure of Inebriety have completed arrangements for an International Medical Congress, to be held at Westminster Hall, London, July 5, and 6, 1887.

The object of this Congress is to present and discuss the problems of inebriety medically, and from a purely scientific stand-point, by the best authorities, thus laying the foundation for a broader and more exact study of this subject.

At the close of the second day a dinner will be served to the Congress by the Society for the Cure of Inebriety. On the third day an excursion and reception will be held at the Dalrymple Home.

Papers and addresses are promised from a large number of the most distinguished physicians.

THE END IN VIEW.—Pudding and praise are the ends for which the great mass of human beings live, said Carlyle. Doctors belong largely to the majority. Each can best decide for himself for which end he is striving. A little of both is good, but a love for a physician's study and practice, aside from either the pudding or praise that may accompany it, is far better and more satisfying. We greatly pity the doctor who would not feel repaid for his work without either pudding or praise.—*American Lancet.*

DISINFECTED IODOFORM.—Heyn and Roveing, of Copenhagen, by experimental researches, claim that iodoform does not prevent the development of bacterial organisms. Hence, then, it is useless as an antiseptic in surgery. They even suggest that it might carry infectious germs to wounds. Hence, they think it should be disinfected with corrosive sublimate before being used.—*Ibid.*

ANESTHETICS DURING PARTURITION.—Dr. Fordyce Barker says that "during the past thirty-seven years I have rarely attended a woman in confinement without the use of chloroform, never where she has suffered considerable pain. Having thus used it in several thousand cases, I unhesitatingly assert that in not a single case have I ever found cause to regret its use."—*British Medical and Surgical Journal.*

THE Medical Record says that the month of March, in New York City, is the most comprehensively and penetratingly dirty month out of a whole year of dirty months in this never overwashed city. Cleaned streets rather than spring medicine is the need of the denizens of this city. "And all the people said amen."

THEIR SOUND IS GONE OUT.—Dr. T. Addis Emmet says that he has not owned a uterine sound for years and his uterine probe has been disabled for a very long time. Both instruments are useless to him since he has employed bi-manual palpation. On this basis it requires one half less time to treat cases of pelvic inflammation of a non-surgical sort.

DR. WILLIAM OSLER reports an early fatal result from the administration of sulphureted hydrogen. Evidently the new treatment of phthisis is not without danger.

A PROMINENT English physician claims to have treated five hundred cases of typhoid fever without alcohol, with a mortality of only four per cent.

THE term of service of Surgeon-General Gunnell, as Chief of the Bureau of Medicine and Surgery of the Navy, expires in March, 1888.

THE next meeting of the American Medical Association will be held at Chicago, Ills., June 7th, 8th, 9th, and 10th.

SPECIAL NOTICES.

CHEMICAL FOOD is a mixture of Phosphoric Acid and Phosphates, the value of which physicians seem to have lost sight of to some extent in the past few years. Messrs. R. A. Robinson & Co., to whose advertisement, in this journal, we refer our readers, have placed upon the market a much improved form of this compound, "Robinson's Phosphoric Elixir." Its superiority consists in its uniform composition and high degree of palatability.

NOTWITHSTANDING the large number of Hypophosphites on the market, it is quite difficult to obtain a uniform and reliable Syrup. "Robinson's" is a highly elegant preparation, and possesses an advantage over some others, in that it holds the various salts, including Iron, Quinine, and Strychnine, etc., in perfect solution, and is not liable to the formation of fungous growths.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. III. [NEW SERIES.] LOUISVILLE, KY., MAY 28, 1887. No. 11.

> *Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.*—RUSKIN.

Original Articles.

A CASE OF IMPACTION OF FECES IN THE SIGMOID FLEXURE OF THE COLON, ACCOMPANIED WITH DIARRHEA.*

BY T. B. GREENLEY, M. D.

On September 28, 1882, I was called to see Miss S., a maiden lady of about thirty-eight years of age. From the best account I could get of the history of the case, she was taken on the 8th of preceding August with what the physician termed typho-malarial fever. She partially recovered from this attack so as to be up in her room for a few days only, but neglected her bowels for two weeks, so that she had no discharge in that time. During this state of constipation dysenteric trouble supervened, when she called in a neighboring physician, who seemed to mistake the dysentery for hemorrhoids, and prescribed accordingly. This M. D. was not the one who attended her in the first place. I had no opportunity to see either of the attending physicians, as the first lived at a distance, and the second had moved from the neighborhood before I was called. On this account I was deprived of learning much of the history of the case. At the time I first saw her she was suffering intensely with the most prominent symptoms of acute dysentery. The tormina and tenesmus were very distressing, but no alvine evacuations, the discharges consisting of mucus and blood. It now had been two weeks since a fecal evacuation had occurred. Her general health was greatly shattered, and emaciation considerable; her pulse was 120, temperature, 102.5° F. No appetite, and some tenderness on abdominal pressure.

Directed the nurse to administer an injection of a quart of warm water, to be thrown up slowly and retained fifteen minutes by pressure on fundament. This had the effect of producing fecal discharges in great abundance, which persisted for two weeks before I could get them arrested. The dysenteric symptoms somewhat abated, there remaining, however, a very acute pain of frequent occurrence, low down in the rectum. The pulse generally maintained its abnormal frequency, which depended mainly on general debility and nervousness. The temperature gradually subsided to 100.5° F.; tenderness of abdomen still continued; tongue did not indicate enteritis. Her appetite slightly improved and aliment was retained. At this time, October 12th, I was hopeful of controlling her bowels and relieving the case, as there were no actions for nearly a week. I was deterred from giving her laxatives for fear of uncontrollable diarrhea, and at the end of six days directed an injection of warm water. This, as in the first instance, had the effect of exciting her bowels to persistent and uncontrollable action for the next two months. During this time she became greatly emaciated, but fortunately her stomach did not seem to be much involved, which enabled her to take food and retain it. Her diet consisted mainly of milk, meat juice, soups, with soft toast, etc. Shortly after the commencement of this attack of diarrhea paralysis of the bladder supervened, requiring the daily use of the catheter for nearly two weeks. I was always informed by herself and nurses that she was discharging a sufficient quantity of urine, but having my attention called to a tumor in her "stomach," as she expressed it, which was tender upon pressure, I discovered an enormously distended bladder, from which I drew off three pints of water. The urine had dribbled away, and wet the clothes under her, which had misled the patient and nurses, inducing them to think the organ was performing its function normally. For this paralysis I put her on tincture of nux vomica and belladonna, which relieved her in the time above mentioned. I had no more trouble with the bladder during her sickness.

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*Read before Hardin County Medical Society, March, 1887.

In order to control the persistent diarrhea I nearly exhausted the catalogue of astringents, both mineral and vegetable, which seemed to be adapted to a case of the kind. I first tried opium and tannin, then, in succession, bismuth in dram doses in combination with the opium, always combining the latter drug on account of pain, fluid extract crane's bill, krameria, catechu, kino, the nitrate of silver, oxide of zinc, sulphate of copper, acetate of lead, and teas and decoctions of nearly all of the astringent barks and plants in domestic use, such as the red-bud, sweet gum, oak, witch hazel, etc. I allowed her to drink infusion of red-bud bark instead of water. At last I became disgusted with the impotency of these remedies, some of which are powerful, and heretofore had proved effective in my hands in apparently similar cases. I now, as a last resort and with but little hope, went to Louisville in search of professional help. On consulting several of our best men, they recounted many of the articles I had already used, and one, in addition, advised the use of Fowler's solution in small doses, and another in the form of liniment, of glycerine, tannin, and quinine applied over the bowels three times a day. I returned, and in addition to my restraining treatment, used that recommended above. I continued the treatment two weeks without any apparent amelioration. I might add I also used a syrup made of ginger, cloves, cinnamon, spice, etc., burnt in brandy and loaf-sugar, also turpentine. I had been giving her regularly, at intervals of about six or eight hours, according to pain, a powder, consisting of opium, grs. iij; tannin, grs. iv; bismuth, grs. xv; and quinine, grs. j. This prescription was kept up regularly, beside the other remedies mentioned above, which were tried in regular order. It may be thought that the doses of opium were large, but I soon found it was necessary to give her that much on account of the severe pain in the rectum. About this time, when all hope had nearly departed, and confidence in remedies much diminished, the patient's mother, who had long since despaired of her recovery, remarked to me that "it was useless to try to do any thing more in the case, that her daughter was bound to die, as she had always been delicate, having had scrofula when a child, and weak bowels ever since; that she could now feel scrofulous tumors in her bowels."

Owing to my deference to her modesty, I had not examined her abdomen since I found retention of urine, and not then except for that purpose. I had occasionally percussed over this region through her clothes to ascertain the presence or not of tenderness or tympanites, but now of course it became my duty to examine her more carefully in order to learn whether her mother's statement was correct. I pressed over that portion of the abdomen where one might expect to find enlargement of the mesenteric glands without discovering any tumors. I examined the iliac regions, and found in the left iliac fossa a tumor of oblong shape, about six inches long, and seemingly about three or four inches thick. It presented to the touch a moderately firm surface, irregularly nodulated. The wall of the abdomen being very thin on account of extreme emaciation, I was enabled to manipulate the mass with some degree of certainty, both as to its situation and character. Of course, I had to be very gentle, owing to tenderness of the part. By exercising some degree of patience I was enabled, as I thought, to displace a nodule of the tumor, without its returning to its position. This fact led me to conclude that I had a case of impaction of the sigmoid flexure of the colon, notwithstanding the three months' fight she had made against diarrhea. This being the case, I was satisfied a channel or passage had been made through this mass which had precluded all possibility of arresting the diarrhea. In a word, this portion of the bowel was paralyzed. I now requested her mother to inject, slowly with a Davidson's syringe, a quart or more of warm water, which she proceeded to do, but to our surprise the water returned through the vagina. It was now evident we had, with the other troubles, to contend with a recto-vaginal fistula. Her mother now informed me that feces had been passing that way, more or less, for several days. I now procured a flexible tube, twenty inches long, and introduced it through the mass, up to the transverse arch, and, connecting it with a Davidson's syringe, gradually threw up three pints of warm water, when the patient complained of some pain from distension. By anal pressure she was able to retain the water some twenty minutes, when I began manipulating the tumor. Having the water above, I gradually, with it, forced nodule by nodule of the mass around and through the lower portion of the flexure, and over the brim of the pelvis into the rectum, until, in half an hour, I had dispersed the tumor. I now gave her castor oil in teaspoonful doses, when, after the third dose, the contents were expelled. This mass consisted of hardened feces in shape of balls, from the size of a partridge's egg up to that of a pullet's. This matter was dark and very offensive; in fact her discharges had maintained these characteristics all through her sickness. I had frequently examined them, expecting to find indications of inflammation and ulceration of the mucous coat, but never noticed any blood or pus after the dysentery subsided, but some mucus. I could now very plainly understand why all my remedies had been impotent in their effects. The fluid contents of the upper bowels, after forcing their way through the impacted mass in the upper portion of the sigmoid flexure, met with no resistance in their exit through the large bowels, where they should have been retarded until they acquired consistence. For the paralysis of the bowel, which had been so long distended and consequently inactive, I exhibited, as in the bladder case, nux vomica and belladonna, in form of tincture, at intervals of six or eight hours; I also was careful that the feces did not accumulate at the same point. In order to avoid such a result, whenever the bowels did not act for twenty-four hours, I directed a teaspoonful of the cordial of cascara, combined with aromatic syrup of rhubarb, and repeated at a few hours' intervals till the desired effect resulted. I now began to gradually diminish the quantity of opium, and in a short time was enabled to withdraw it altogether. The bowels, from the time I succeeded in getting rid of the impaction, began to gradually check up, when I left off all astringents except the opium and bismuth, if these articles can be properly termed such. Occasionally, at my visits, I would find a few lumps of hardened feces in the sigmoid flexure, and by gentle manipulation was enabled to carry them into the rectum without water. In fact, I had no occasion to repeat the injection.

In about five weeks from the time I displaced the fecal mass, under the use of nux vomica and belladonna, the bowels became regular once a day, and the discharges duly consistent. For some time after this I kept the patient on arsenic, alternated with tincture avena sativa—the latter I find to be a good supporter of the circulation, as well as a bracer of the appetite and digestion. Her general health rapidly improved under this treatment—she soon regaining her strength and natural quantity of flesh. She was in bed altogether seven months before she could sit up. In addition to the above treatment I used, to some extent, massage, but she was so near the point of the historic patient characterized as "skin and bone," that but little could be done in the way of manipulating or pinching the muscles, as their volume was quite diminished. After the discharges from the bowels acquired proper consistency, there was no further escape of feces through the vagina, and no trouble, in that regard has since been manifested.

Remarks. I think the history of this case presents some features of a unique character. At the time I regarded the impaction of the sigmoid flexure, accompanied with persistent diarrhea, as of very unusual occurrence, not having seen a case reported. But since, in the February number of "Progress," Dr. Arch. Dixon, of Henderson, Ky., reported a case somewhat similar in some of its characteristics. It occurred in a girl fourteen years old.

The impaction was in the sigmoid flexure, and accompanied with persistent diarrhea. It was also complicated with pelvic cellulitis, resulting in abscess, which he discharged through Douglas' *cul-de-sac*. His patient recovered.

Although several writers allude to fecal impaction of the colon, I do not recollect seeing any cases reported, except that above alluded to, where diarrhea was the prominent feature. Dr. Dixon, in his paper, gives an able *resumé* of impaction of the colon as presented by the few authors on the subject. He quotes from Treves, Allingham, Jewell, of Chicago, who read an able paper on the subject before the Medical Society of that city, in October, 1886, relating his experience in a number of cases, and of Dr. Owen, of Evansville, Ind., who read a paper before the McDowell Medical Society, October, 1886,* I regard the paralysis of the bladder and the formation of a recto-vaginal fistula as unique occurrences in this connection. We can account for the temporary paralysis of the bladder on the ground of long-continued pressure of the bowel contents, but occurrence of a fistula between the rectum and vagina is not so easily explained. As the patient had dysentery in the outset, ulceration of the rectum may have set up, and, the circulation and nutrition of the part being impaired by the long-continued pressure on the bowel above, that process was continued until the integrity of the septum was destroyed.

The peculiarities of this case impressed me with a lesson of a lasting character, to wit, that it becomes an imperative duty, after we are disappointed in the effects of our remedies, to use diligent means of investigation in order to learn why they have no effect. Now, in this case there were two conditions of a dangerous character that were only discovered, it may be said, by accident. In one we have paralysis of the bladder with retention, the patient and nurse being deceived by the cloths under her being generally found wet. I can hardly blame myself for the retention, as up to that time there had been no bladder symptoms, and always being informed that the kidneys were acting sufficiently. Had retention been allowed to continue much longer in this case, we would have had inflammation and perhaps fatal consequences, as there had already supervened great tenderness. As it regards the other condition, I can hardly feel myself so free from blame, although I do not suppose, under the circumstances, that scarcely any one would have dreamed of impaction as the cause of the persistency of the diarrhea, and the reason why the remedies had so little effect. I do not expect, however, to live sufficiently long to see another similar case, and of course I do not expect to be subject to censure, either on the part of myself or others, under similar circumstances. I have known, I think, of two cases of paralysis of the bladder, accompanied with persistent retention, wherein abler men than myself were thrown off their guard by the fact that the urine dribbled away. I was called in consultation to those cases, and noticing a tumor above the pubes, I was satisfied that retention existed, which opinion was verified by the use of the catheter. One of these cases occurred many years ago, and was mistaken for inflammation of the bowels. One of the remedies resorted to for relief was cupping with scarification over the tumor, which proved to be a very painful operation to the patient.

West Point, Ky.

A SUCCESSFUL CASE OF TRACHEOTOMY FOR EDEMA OF UPPER PART OF LARYNX.*

BY W. CHEATHAM, M. D.

Clinical Lecturer on Diseases of the Eye, Ear, and Throat in the Medical Department, University of Louisville.

April 11th Mr. C., aged forty-two, called his family physician to prescribe for what was thought at the time to be pharyngitis or tonsillitis, and for which the usual remedies were given. At 12 o'clock that night his trouble had increased rapidly, and not being able to get his family physician, he called a doctor who was a near neighbor. His breathing becoming difficult, at 5 o'clock Tuesday morning, April 12th, I was telephoned for. I found extensive edema of the epiglottis, which extended into the larynx as far as the arytenoids. His breathing was distressing. Scarification was done three times, with no relief; in fact, after the last scarification the dyspnea was found to be greatly increased, probably as a result of the hemorrhage that followed. The difficult breathing increased so rapidly that in a few moments the patient fell back in bed, cyanosed, and respiration ceased. Picking up the scalpel hastily, with two cuts I laid the trachea open. I had no time to either study the anatomy of the part or to pay special attention to the site of the incision. Hemorrhage for a few seconds was excessive. Fortunately the incision into the trachea was of such size as to admit the tracheotomy tube under slight pressure, while the edges of the wound fitted so closely around the tube as to prevent entrance of the blood into the trachea. I applied my mouth to the tube, inflating the lungs thoroughly, and emptying them by pressure on the chest. In a few seconds there was recurrence of respiration, and the hemorrhage stopped.

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*Since writing the report of this case I notice that impaction of colon, accompanied with diarrhea, is referred to in International Encyclopedia of Surgery.

*Read before the Louisville Clinical Society, April 26, 1887.

Hemorrhage in future tracheotomies will alarm me but little; I mean hemorrhage from the incision. In a tracheotomy performed by me about a year and a half ago hemorrhage from the lungs followed as soon as the air entered them freely, and I had the misfortune to see the child die in my lap. Of course such hemorrhage as this is serious, and may well be dreaded by the surgeon. Had there been no hemorrhage in Mr. C.'s case I would not have used a tube, as I believe it indicated in but few cases. The tube was worn until April 17th, at 12 o'clock M., when it was removed, and the wound closed by deep sutures and adhesive plaster. The case progressed without interruption, save the reopening of the wound one day, when the patient was straining at stool. There has been no leakage since April 24th. For a short time after the operation there was some pain in swallowing, and rectal feeding was resorted to. This disappeared in thirty-six hours, after which all progressed well.

No cause for the edema could be discovered. The patient is a foreman in a large flour mill and cracker factory, where he inhales a great deal of dust, etc.; but he has breathed in just such a dust-laden atmosphere for thirty years.

Three or four days after the operation it was possible to get some of his history, and it has, as it were, "had Smith walking the floor," as he has had syphilis. The initial lesion was eight years ago; still I feel some discomfort, as my mouth and nose were filled with his blood several times during the operation.

I believe that tracheotomy in such cases as the one reported is, as in croup, often too long delayed. A few months since I lost just such a case by delay.

Had I had with me in the case reported a tube suitable for an adult, I would have tried intubation, as I believe, and have so expressed myself, that it will do all the good that tracheotomy can do in such cases, without subjecting the patient to mutilation, hemorrhage, and not a few other drawbacks and dangers inseparable from the operation.

LOUISVILLE.

MULTIPLE PREGNANCY: A CASE.

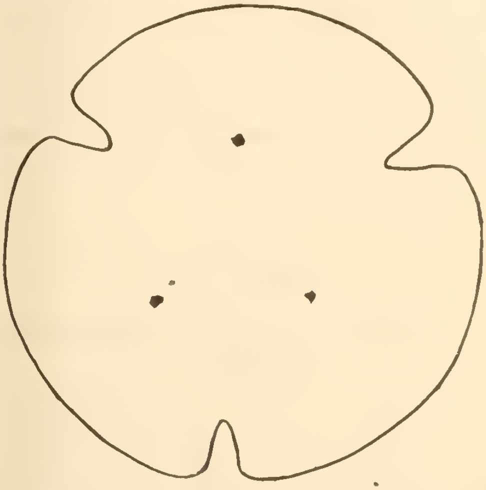
BY A. C. EWING, M. D.

Mrs. D., aged twenty-eight, is an Australian by birth, of dark complexion, and rather below the medium height, weighing, when well, one hundred and sixteen pounds. She has two children (boys, by a former husband), aged respectively eight and ten years.

On March 12th, at 2 P. M., I was called, and found her well advanced in the first stage of labor. Her abdomen was extremely large, and under such tension that pressure against the diaphragm caused much suffering from impeded respirations. Her lower limbs, especially the left, were greatly swollen from edema. The condition of the limbs had prevented her from taking exercise for two or three weeks prior to the above date, the greater part of which time had been spent in bed. The vulva also was markedly edematous; so swollen was it that, when making the examination, my finger came in contact with it, and I for the moment took it to be the bag of waters. Mrs. D. thought she was having only "false pains," as she did not expect to be confined before the second week in April. Examination (3 P. M.) revealed the os fully dilated and child in R. O. P. position. Though pains were strong and regular, progress was extremely slow, there being seemingly some impediment in the way of farther advancement, causing me to suspect twin-pregnancy or the presence of a tumor. About 6 P. M. the pains began to flag; I gave fifteen grains quinine, which revived them. At 10 P. M. I discovered that the occiput, instead of rotating along the anterior plane, as is usually the case, had rotated backward, and, descent being incomplete, the forehead was jammed up against the symphysis pubis, the large anterior fontanel being plainly felt, with the sagittal suture pointing directly backward. I now realized that I had to deal with that rare condition of things known as the antero-posterior or "brow" presentation. I first tried to push upward the frontal bone, and then favor the descent of the occiput, as recommended by West, but this, after repeated trials, had to be abandoned. Recognizing the gravity of the situation (that no farther progress could be expected), Dr. A. C. Standart was called, who, recognizing the unusual position, decided with me upon the immediate use of the forceps. At 11:30 P. M. I applied the forceps, Dr. S. giving the anesthetic. The child (a boy) was delivered in a few minutes. Delivery was effected by pulling, or rather pushing, the forehead off the pubes and downward, converting it into a face presentation; then, instead of proceeding as most authors advise in such cases, viz., to bring out the occiput first over the perineum and deliver by extreme extension, I concluded, because of the great danger of rupture by this procedure, to deliver by flexion. (See Encyclopedia of Obstetrics, page 142; King's Manual of Obstetrics, page 146, etc.) So, pushing the occiput back as far as I could into the cavity of the pelvis, I unlocked the blades, slightly raised the handles, readjusted them, with the blades corresponding to the occipito-frontal diameter, and pulled down, until the forehead, nose, and chin escaped successively from under the pubes, when the occiput was easily delivered by flexion—all being accomplished without producing the slightest rupture or undue stretching of the parts. At this juncture we noticed that the abdomen remained apparently as large as before, there being but a slight sinking of the right side. I introduced my hand well up into the vagina, and discovered another child, whose head was situated about midway between the superior and inferior straits, in the L. O. A. position. I then readily understood why the descent of the first child was prevented; the second, being forced down with each pain against the right side of the presenting child, prevented flexion and anterior rotation, and at the same time tended to press the forehead firmly against the symphysis pubis. The pushing of the occiput of the first child back into the cavity of the pelvis produced *flexion* of the second; but, had the latter been in a posterior position, this maneuver would probably have failed, as its extension would have been extremely difficult. Pains having ceased, though the mother's general strength was good, ten grains of quinine, with a half dram of Squibb's fluid extract ergot, were given, which was soon followed by a recurrence of regular and strong pains. It was during this period of labor especially that the patient suffered most from dyspnea. The circular fibers of the womb alone seemed to contract, result perhaps of the ergot, or, at least, so strong was their action that they overcame those of the longitudinal, causing the fundus with its contents to rise up forcibly above its primary level and against the diaphragm, and this so interfered with the function of respiration that at times the patient seemed to be in danger of suffocation. According to Lusk, the rising of the fundus above its primary level is always the case, but I think this condition is more marked when the presenting child meets with a resistance, as was the case here, thus provoking a trial of strength between the circular and longitudinal fibers. In other words, when "in meeting a resistance that tests the strength of both, the circular must prevail." [ED. AMERICAN PRACTITIONER AND NEWS.]

An hour elapsed, and but little progress being made, a dram of ergot was given, the forceps applied, and the second child (a boy) slowly delivered, the assistant at the same time compressing the womb to prevent hemorrhage and assist in the expulsion of the placenta. The abdomen still remained large, but this was not thought to be from any other cause than the retention of the placenta, or double placenta. After waiting half an hour for its appearance, and repeated trials of expression, after the manner of Playfair, having failed, I introduced my hand to forcibly expel it, when it came in contact, within the womb, with the placental mass, whose edges had become detached, and had rolled in upon itself in the shape of an immense ball. Passing my fingers around in search of the edge, I was a little startled by a gush of what I at first thought to be blood, and I can not say that I was much relieved when it was discovered to be the contents of a second amnion, in the escape of which the edges of the placenta were separated, and my hand at once came in contact with the advancing head of another child! It came down at once to the outlet, and as the mother was exhausted and the child dead (the bones of the head being easily compressed under the hand), I delivered it at once by means of the forceps; this was also a boy. Evidences of decomposition having taken place, we concluded it had been dead at least one week. I may here state parenthetically that not the slightest rupture was produced in any of the deliveries. The last child was the largest of three; the first weighing six pounds, the second seven pounds, and the third and last, seven and a quarter pounds. It was fully developed, was enveloped in an amnion of its own, while one served for the other two. Defective nutrition did not cause its death, which, I believe, was due to pressure against the ribs and sternum of the mother. The placenta, for there was but one, was soon delivered, and without any hemorrhage following. It was very large, weighing three and a quarter pounds, having three separate cords attached, and was shaped like this (see figure), the dots representing the cords.

Patient did well and sat up on the 24th, (twelfth day). not having had, up to this time, a single unfavorable symptom. On the next day, however, I was called at 7 P. M., and found her with temperature 104°, pulse, 128, lochia stopped, it having ceased the evening before, and, in fact, unmistakable symptoms of puerperal fever. I at once gave fifteen grains each of quinine and Dover's powder, and applied hot turpentine stupes to abdomen. At 6 A. M., on the 26th, the quinine and Dover were repeated, and at 10 A. M. the temperature was 103°, pulse, 120. The antipyretic was again given, same strength, and repeated at 4 P. M. At 7 P. M. the temperature was 103.6°, pulse, 132. Examination of the womb, with view of giving an intra-uterine injection: found it large and flabby, the dilated fundus being plainly felt through the walls of the abdomen. The injections were evidently indicated, but I decided not to use them, and instead gave one grain Squibb's solid extract ergot, in capsule, every four hours. It seemed to me that, in this case at least, the stoppage of the lochia was merely its retention within a flaccid and contractile womb, and therefore that this should not be looked upon as one of the symptoms of puerperal fever, but as really the cause. The ergot produced a most happy effect, for at 8 P. M., next day (27th), the flow was re-established, and at 10 P. M., when I saw her, the temperature was 102°—no quinine had been given since 4 P. M. day before—and pulse, 112. The discharge at first was dark and very offensive, but it gradually assumed a healthy hue and smell, as the womb lost its loose, flabby condition and became again firmly contracted, while the temperature and pulse became lower day by day, until, on the 30th, there was an evening temperature of 101°, and pulse, 96. But here a new trouble arose, and this was a painful and very much swollen lower left limb (peripheral venous thrombosis). The treatment was to envelop it



in cotton batting, over which was applied a rubber bandage, the limb being elevated. This soon relieved pain, and the swelling subsided so that cure was effected in twelve days. On the 23d April, after Mrs. D. had been up and walking around for four or five days, her other limb became affected exactly as the left had been, when same treatment was instituted, and at this writing (May 3d) patient has been discharged well.

Salt Lake City, May 3, 1887.

Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.

The regular annual meeting of this Society for the election of officers was held on the evening of the 20th instant. The following officers were appointed for the ensuing year upon the unanimous vote of the Fellows: President, John G. Cecil, M. D.; Vice-President, Turner Anderson, M.D.; Secretary and Treasurer, D. T. Smith, M. D. The retiring President, Dr. H. A. Cottell, took leave of the office in the following address: *

Gentlemen:

Our Society year begins with the first meeting in June, and ends with the last meeting in the following May.

The year which this meeting closes has been an average one in point of scientific interest, and marked by no unusual vicissitude, save the death of a member and a controversy or two of extra scientific significance. During the twelve months passed the Medico-Chirurgical Society has held twenty-four meetings, on which there has been an average attendance of about seventeen. Twenty pathological specimens have been exhibited, seventeen essays have been read and discussed, and forty-seven cases of more than common interest have been reported. In addition to this, a number of patients who were the subjects of rare or obscure diseases have been presented for examination by the Fellows.

Our proceedings, which have been admirably shaped by our efficient retiring Secretary, will compare favorably with those of any medical society in the land. Their publication in our home medical journals has served to call the attention of the profession at large to our work, and has added no little to the interest of the periodicals in question. If proof of these statements were needed, I might cite several instances wherein contemporary journals of other cities have, during the year, copied in whole or in part the proceedings of the Louisville Medico-Chirurgical Society.

But, however gratifying this show of our work may be, it is clear that it could easily be made a factor of greater power in our development and influence. By a little more work on the part of the Fellows, and a trifling outlay of money, our proceedings might be published regularly in the form of advanced sheets, and placed at the disposal of our home journals, and certain other select journals of the South, West, and East, many of which would publish them, and thus enhance our usefulness and extend the fame of the Society. To make this scheme effective it would be necessary for each member to write out in full the history of any case he shall in future report, and for the Fellows to conduct the discussion strictly in accordance with the provisions of our constitution. That this Society consider this question at its earliest convenience I would earnestly recommend.

Two mild innovations, which, if not repressed, might threaten the future cohesive strength of the Society, loom up in our retrospective view. The first is the caucus for the discussion of ethical questions; the second, our recent method of dealing with members who may believe themselves aggrieved at our hands, and seek redress for real or fancied wrongs.

As for the first, while we as a Society can not elect to say that any member or members so choosing may not call or form a caucus at any suitable time for the discussion of ethical questions, we should, in the interest of harmony and science, so strengthen our constitution that in no case would it ever be possible for the hours sacred to the legitimate work of the Society to be so unprofitably consumed.

For the second I would recommend that all matters which may savor of personal grievance be referred to a temporary committee, whose duty it shall be to sit upon the case and give it final settlement. Ethical questions are counter to the genius of this Society, and while following the rugged path along which, *per aspera et ardua*, they do battle with error and strive to reach the heights of scientific truth, it is not fit that the Fellows shall be called on to dodge or parry the thrusts or missiles of any justly or unjustly aggrieved member.

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*Printed by order of the Society.

One sad event must claim a passing comment. The death angel has passed under the lintel, and we mourn the taking away of a gifted young friend and Fellow.

Dr. Ferguson deserved much of this Society, in that he added strength to its scientific deliberations, and served it most efficiently for one term in the capacity of secretary. Had he lived, his talents and his industry would have given him rank among the conspicuous physicians of his generation.

I can never think of Maupin Ferguson, his tender manhood, his faith in his destiny, his high attainments in learning, his worthy ambition, his brief, brilliant career, whose radiance, alas! was but the flash of that fire of genius destined so soon to consume him, that I do not recall Byron's beautiful tribute to the memory of Henry Kirke White:

Oh! what a noble heart was here undone,
When Science self destroyed her favorite son!
Yes, she too much indulged thy fond pursuit;
She sow'd the seeds, but death has reap'd the fruit.
'T was thine own genius gave the final blow,
And helped to plant the wound that laid thee low.
So the struck eagle, stretch'd upon the plain,
No more through rolling clouds to soar again,
Viewed his own feather on the fatal dart,
And wing'd the shaft that quivered in his heart!
Keen were his pangs, but keener far to feel
He nursed the pinion which impell'd the steel;
While the same plumage that had warm'd his nest
Drank the last life-drop of his bleeding breast.

While some of the incidents and events here passed in review may awaken for a moment the sentiments of sorrow and regret, it is pleasant to reflect that our solidarity remains unshaken, that our record of scientific work is one which we may contemplate with satisfaction, if not with pride, and that the social features of the Society have added in full measure their wonted zest and good cheer to its deliberations.

An organization such as ours bestows upon its every member many inestimable blessings and benefits. It moves him to carefully study and report his cases; it enlarges the sphere of his knowledge by pouring into his ear the learning and experience of our best practitioners; it admonishes him of his ignorance of many things medical, and so purges him of his conceit; it teaches him that doctors, despite their little differences and occasional petty quarrels, are a noble guild, bound together by indissoluble ties of a common interest and a common love, and thus builds up his faith in that grandest of all doctrines, the common brotherhood of man.

Brethren of the Medico Chirurgical Society, your retiring President owns himself to be in full measure the grateful recipient of these benefits, and thanking you for the honor so generously bestowed upon him, and which he knows full well he has worn but unworthily, he delivers into better hands your best gift, bids you God speed, and takes the floor.

At the close of the address a committee was appointed to take into consideration the recommendations of the retiring President, and after an hour spent in the discussion of medical questions the Society adjourned. A collation worthy of the occasion was spread by the Vice-President elect.

FEBRILE PHENOMENA.—At a recent meeting of the Société Médicale des Hôpiteaux, M. Robin made a communication relative to the treatment of pyrexia. He endeavored to demonstrate that in fevers oxidation, instead of being augmented, is really diminished. According to the author, the present application of therapeutics to this disease rests upon an erroneous basis. Recourse should be had to oxidizing medicines. He had made numerous experiments in this direction on animals. He had tried chlorate of potash, which is inapplicable to man on account of the great doses necessary. He prefers alcohol and copious drinks.—*American Lancet.*

Reviews and Bibliography.

A Manual of Weights and Measures, including the Principles of Metrology, etc., with rules and tables. By OSCAR OLDBERG, Pharm. D. Second edition, revised, pp. 246. Chicago: Charles Johnson. 1887.

In this work Dr. Oldberg has given an exhaustive comparison of the metric or decimal system of weights and measures and those in common use among English-speaking peoples. The author points out clearly and cleverly the advantages of the metric system and the difficulties in the way of its adoption. The most formidable obstacle, he thinks, is aversion to any change which necessarily calls for the temporary application of the least amount of exertion of the mental faculties. He does service also in showing that the decimal system is of American origin in a great degree. There has, we think, been a kind of aversion to the adoption of this system, based upon the notion that it is something foreign.

The most weighty and valid objection, however, to the universal adoption of the system Dr. Oldberg has not referred to, and this is the difficulty of its adoption in manufactures. In geodesy also its adoption presents difficulties. When we have built a house on a thirty-foot lot the measure is easy to express; but when it comes to telling a purchaser that you wish to sell him a lot 91.439726 centimeters front, he will hesitate about buying property so encumbered.

Millions on millions of dollars are invested in rolling mills and other machinery for working iron, steel, and other metals. The product of this machinery must either be designated by a cumbrous translation of the terms expressing the measure or the machinery must be changed. It will require quite an amount of intellectual self-denial for a country blacksmith, who has been making purchases of iron or steel in three-sixteenths bars, to call for bars of .4199508 millimeter.

It is safe to say that the time required for the change will be centuries, if it is ever done. Some compromise, however, may result in bringing us much nearer to the adoption of the new system than at present. As far as weights are concerned its adoption is much easier, and in the sciences the adoption of the entire system is likely to take place in the not distant future. Even now, to read understandingly at all foreign scientific literature, one is compelled to have a knowledge of the metric system. And it is to be hoped that some method may shortly be found of converting all weights and measures to some kind of decimal system.

A Practical Treatise on Obstetrics. Volume III (four volumes): The Pathology of Labor. By A. CHARPENTIER, M.D., Paris. Illustrated with lithographic plates and wood engravings. Pages, 348. This is also Volume III of the Cyclopedia of Obstetrics and Gynecology, 1887. New York: Wm. Wood & Co. Price of set, $16.50.

In reviewing the first two volumes of this work we took occasion to speak at length of its excellences. The third volume does not in the least fall short of the high standard established by the previous ones. There is the same vigorous, lucid style, clearness of arrangement, fairness of presentation, and judiciousness in drawing conclusions. Indeed, the work is not only learned and exhaustive, but in its style and arrangement it is fascinating.

Earth as a Topical Application in Surgery. By ADDINELL HEWSON, M.D. Second edition, pp. 309. Philadelphia: The Medical Register Co. 1887.

Considering the effects that clay is known to have in the purification of fluids percolating through it, it was only a reasonable expectation that it should exert a favorable influence on the course of surgical injuries.

Clay is used in the refining of sugar and syrups, comparing very favorably with charcoal in this respect. Itself subject to no organic changes, and having these fine filtering powers, its position in surgery was hardly a matter for proof, but rather of comparison with other substances.

Dr. Hewson has for a number of years been its champion, and makes a very favorable showing as the result of his experience. Just at present the tide sets in too strong in another direction for the use of earth dressing to make rapid headway. But doubtless there are cases where this dressing commends itself above all others, and no doubt many chronic cases where it may be alternated with other dressings with advantage. The abilities and method of the author commend his work as worthy of careful attention.

A Treatise on Simple and Compound Ophthalmic Lenses: Their Refraction and Dioptric Formula, including tables of crossed cylinders and their sphero-cylindrical equivalents. By Chas. F. Prentice. James Prentice & Sons, Opticians, 178 Broadway, New York.

This little work deals with a subject of special interest to those engaged in the daily adaptation of spectacles. To him who has not time to work out by mathematical problems the result of combining two cylindrical, or a spherical and a cylindrical lens, it will be of value. The subject is well handled, and the drawings are plain, thus leading to an understanding of the subject without the aid of mathematical formula. This will be of interest to those of us who have worked over the complicated mathematics found in certain portions of Donder. The reader is struck with the practical knowledge of the different combinations and their results shown by the author.

J. M. R.

Thompson's Disease (Myotonia Congenita). By George W. Jacoby, New York. Reprint.

Feeding Patients against the Appetite. By Ephraim Cutter, M. D., M. M. S. Reprint.

Medical Opinions on the Nutrition of Infants and Invalids. Wells, Richardson & Co.

Wyeth's Dose Book. Seventeenth edition, pp. 226. Philadelphia: P. Blakiston, Son & Co. 1887.

Dose and Price Labels of all the Drugs and Preparations of the United States Pharmacopeia of 1887. B. C. Lochman. Pages, 201. Philadelphia: Dunlap & Clarke. 1887. Price, $1.25.

The Year-book of Treatment for 1886. A Critical Review for Practitioners of Medicine and Surgery. 12mo, pp. 304; cloth. Philadelphia: Lea Brothers & Co. 1887. Price, $1.25.

Evacuant Medication (Cathartics and Emetics). By Henry M. Field, M. D., Professor of Therapeutics, Dartmouth Medical College. 12mo, pp. 288; cloth. Philadelphia: P. Blakiston, Son & Co. 1887. Price, $1.75.

Certain Causes of Sterility in the Female and their Treatment. By Egbert H. Grandin, of New York. Reprint.

The Practitioner's Hand-book of Treatment, or the Principles of Therapeutics. By J. Milner Fothergill, M. D., Physician to London Hospital for Diseases of the Chest, etc. Third American from the third English edition. 8vo, pp. 660. Philadelphia: Lea Brothers & Co. 1887. Price, $3.75, cloth; $4.75, leather.

Medical Electricity: A Practical Treatise on the Applications of Electricity to Medicine and Surgery. By Roberts Bartholow, A. M., M. D., LL. D., Professor of Materia Medica, General Therapeutics, and Hygiene in the Jefferson Medical College of Philadelphia. Third edition, enlarged and improved. One hundred illustrations. 8vo, pp. 304. Philadelphia: Lea Brothers & Co. 1887. Price, cloth, $2.50.

A Practical Treatise on Impotence, Sterility, and Allied Disorders of the Male Sexual Organs. By Samuel W. Gross, A. M., M. D., LL. D., Professor of the Principles of Surgery and Clinical Surgery in the Jefferson Medical College, of Philadelphia. Third edition, thoroughly revised, with sixteen illustrations. 8vo, pp. 172; cloth. Philadelphia: Lea Brothers & Co. 1887. Price, $1.50.

Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Though all appreciable voluntary effort to abolish the evil of smoke fog is obviously wanting, it is gratifying to learn that one invention at least already exists for excluding the noxious vapors from houses and public buildings. In reply to a question on the subject in the House of Commons, the first Commissioner of Works recently stated that experiments had been made by Dr. Percy some years ago, during the fogs of November, and when the House was not sitting, with a view of rendering the chamber fog-proof, and this object had been successfully attained by filtering the air supplied there through cotton wool. While holding that this process might be effectually and inexpensively applied to the interior of the chamber, its inventor scarcely deems that the benefit can be extended to the lobbies and corridors of the House, owing to structural difficulties. Further preliminary trials of this system of filtration are, however, considered desirable before it is adopted in the House of Commons, and these experiments may probably render it more perfect and more generally applicable. Nowhere can its services be more urgently needed than in the Houses of Parliament, or St. Thomas' Hospital facing it, where river fogs combine with the ordinary material to produce "London particles" of extreme density and frequency, which defy the power of the most brilliant artificial light, deaden sound, and cause altogether indescribable discomfort. Fortunately for members of the House of Commons, they have the prospect of at least partial immunity from those horrors of thick darkness, and from the danger of an atmosphere scarcely less unwholesome and noxious than they endured from the defective system of drainage which has just been remedied. But for its opportune mention in the House, this mode of excluding fog would, perhaps, never have attracted more attention than has been bestowed upon it in the years that have elapsed since its discovery, but there can be little doubt that it will now receive due and wide appreciation. Next fog season would assuredly be deprived of no inconsiderable portion of its miseries if the dire enemy could be kept from intruding into public buildings of all sorts. A process which is described as simple and not costly ought, however, to have even more important and speedy recognition in hospitals and in the too numerous households where the exclusion of fog would make the difference, not between comfort and misery, but between life and death to invalids suffering from bronchial disease, consumption or asthma. But few families in smoky London are free from anxiety concerning some delicate relative, and many and futile are the efforts made each winter against the deleterious effects of fog on the weak throat or lungs. In the most carefully treated and thoughtfully managed sick-room it has hitherto found its way, claiming yearly a terrible number of victims and causing a fearful amount of suffering. In saving the life thus sacrificed, or in mitigating the winter agonies now endured by many persons, the new process may find noblest use.

Successful as this or other palliative measures may prove within a limited sphere of action, however, the main force of the evil must remain to work ever-increasing harm, unless far more stringent means than have hitherto been possible are adopted for its suppression. All that can be done in the way of warning explanation and entreaty has been done by the energetic labors of the Smoke Abatement Association, and in every rank of life people are cognizant of the cause and dangers to health of the black fog. All that can be supplied in the way of apparatus for prevention and smokeless fuel has been placed before the public with the attractive characteristics of economy and cleanliness to recommend them. But the population of London, of every degree, cling to the open chimney and raw coal, and will have none of these things. The walls of our grand ancient edifices are crumbling from the effects of smoke fog, and the ugliness of recent attempts at architectural magnificence is aggravated by dingy blackness. Children and flowers grow paler and more difficult to rear in the soot-laden atmosphere, which depresses the spirits and impedes the breathing of the healthiest and strongest adult. Human beings are killed or maimed, and horses perish by dozens in the streets, all from the same cause, yet the sole reason that the house owners or house occupiers can offer for the continuance of these lamentable conditions is that the good old-fashioned coal fire must be maintained because it is cheery, comfortable, and altogether suited to his proclivities. Even in the long lines of houses now rising to constitute new suburbs on all sides of London, no attention is paid to the necessity of smoke abatement, and the chimneys are constructed to give the nuisance all possible aid. Unquestionably, the time has arrived for the question to receive the attention of the legislature, and not until rules and regulations fully as stringent as those which have extinguished the smoke from factories can be enforced in private houses may any reasonable hope be entertained that the heavy smoke pall overhanging the metropolis will not continue to augment.

During the month passed, a well-attended meeting of the Ophthalmic Hospital at Jerusalem was held in the Jerusalem Chamber, Dean's Yard, Westminster. Among those present were Mr. Brudenell Carter, Mr. Higgins, Mr. Power, and some hundred ladies and gentlemen interested in the good work being done in Syria. The fame of the hospital, which was established in 1882 by the English branch of the Order of St. John, to alleviate eye diseases among the poor of the Holy Land is rapidly spreading. The few beds at the disposal of the resident English doctor are always full, and many serious cases have to be turned away. Pilgrimages are made from remote parts of the country, and many cures have been effected. His Majesty, the Sultan, besides having generously contributed toward the purchase of a site and buildings, has accorded his special protection to the hospital, and takes a great personal interest in the working of the charity.

A deputation, composed of Earl Stanhope and four others, have waited upon Mr. Savory, President of the Royal College of Surgeons, at the college, to present two memorials in opposition to a "round robin," recently presented to the same body, asking for the establishment, out of the funds left to the college by the late Sir Erasmus Wilson, of an institution for physiological and pathological research, which it was feared would involve experiments on living animals. Lord Stanhope having stated the object of the memorials, the president, in reply, said that out of the Erasmus Wilson funds they would propose, probably, to enlarge the museum, and there would be some rooms made for experiments of some kind, he did not know exactly what. But up to this point the council showed not the slightest disposition or inclination to build such an institution as that proposed by the signatories of the "round robin." If they had any experiments at all, they would be under the restrictions of the present act. He promised to lay the memorials before the council, who would give them all due consideration and weight.

LONDON, April, 1887.

THE UNIVERSITY OF BERLIN.—Dr. Olshausen, of Halle, has accepted an invitation to fill the late Prof. Schroeder's chair of obstetrics.

PARIS LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

In a posthumous work, by Dr. Guéneau de Mussy, on clinical medicine, there is one malady with which his name is so intimately connected that it almost gives him the right of having been the discoverer of that malady. I allude to bronchial adenopathy. The subject forms a monograph in itself, and the observations therein contained are supported by seventy-three cases in detail. This affection, the diagnosis of which is always difficult, sometimes impossible in its early stage, as the signs are more negative than positive, is, according to the author, no longer the exclusive appendage of the first or second childhood. It is equally observed in the adult, and even in the aged, numerous examples of which came under the author's personal observation. The part of the work devoted to its treatment is rather abridged, but the causal indications are fully entered into with great clinical acumen. The most important is to seek to modify the constitutional condition, of which chronicity is the expression, and reduces the treatment to that of lymphatism which, in the greatest number of cases, is one of the fundamental elements of the treatment of adenopathy. Another malady, of which tracheo-bronchial adenopathy is often the consequence, viz., whooping-cough, is also treated of in the same work. M. Guéneau de Mussy admits that whooping-cough is a specific malady, as it is contagious, thus approaching the character of eruptive fevers, and for which he proposed the denomination of "specific pyrexia," which has been adopted by M. Roger in his work on the diseases of children. It is to the compression of the pneumogastric nerves by the hypertrophied bronchial glands that the author attributes the fits of whooping-cough. According to this idea, whooping-cough may be considered only an annex of bronchial adenopathy. The same may be said of exophthalmic goitre, which is also noticed in the work, and in which adenopathy of the mediastinum plays a considerable part in the genesis of the characteristic dyspnea.

In an interesting article on the pathogeny of epilepsy in the *Courier Médical*, the writer, whose name is not given, observes that the theories proposed to explain the attacks of epilepsy may be reduced to three principals. Tenner and Kussmaul ascribed the disease to anemia of the cerebellum, Todd and Frerichs, to the presence of ammoniacal substances in the blood, while for Brown-Séquard, the bulb, irritated by the great sympathetic nerve, and becoming a reflex center on the one hand, contracts the blood-vessels of the encephalon, whence results loss of consciousness; on the other hand, the motor nerves are irritated, whence convulsions. Rosenbach took up the question, and performed some experiments on animals, bearing in mind the recent works on the physiology of the cortical substance of the brain. The convulsions produced in dogs by electrifying the brain are the result of an irritation of the motor cortical centers; they correspond to the cortical or idiopathic epilepsy of man. This epilepsy does not in any way differ from common epilepsy. The epileptic attacks, the same as the symptoms of the *petit mal*, are the effects of a primary morbid irritation of the cerebral cortex. The variety which is observed in the clinical tableau of epilepsy is in relation with the degree and the seat of the morbid irritation. This theory, supported by experimental proofs, is destined, according to Rosenbach, to replace that which places the seat of the malady in the spine, or in the medulla oblongata.

In the treatment of epilepsy, Dr. Vallender has had the best effects with apomorphine, administered in the form of hypodermic injections, with the following solution: hydrochlorate of apomorphine, 1 gram; distilled water, 10 grams. Half or three quarters of a Pravaz's syringe is administered, at which dose the emetic effect is naturally produced. According to the author, apomorphine arrests the epileptic fits in virtue of the action which this substance exercises on the medulla oblongata.

In connection with this subject I may note that MM. Bourneville and Bricon have employed curare in the treatment of epilepsy. After having ascertained the minimum dose of this substance for a dog, these physicians arrived at the quantity for a man in making a proportional calculation between the weight of the dog and that of man. The result was that the maximum dose for a human adult, weighing seventy-five kilograms, was fifteen centigrams. They administered the medicament, by the hypodermic method, in a solution of eight per cent.. They operated on thirty-three patients, and the following are the conclusions of their observations: "The results that we have obtained are very different from those which have been registered by certain authors. Of thirty-three patients affected by the most varied forms of epilepsy, some being adults, others children, who were submitted to the subcutaneous injection of curare during three and six months, and even more, we found only one who had derived some serious benefit from the treatment, another was slightly improved, while in a third, the fits were diminished in strength but not in number. To sum up, we do not think that curare ought to be maintained on the list of useful medicaments in the treatment of epilepsy."

Dr. H. Bonnewyn, of Brussels, recommends the following remedy as a radical cure for epilepsy. He applies the actual cautery deep in the calves of the legs with a hot iron, raised to white heat, and during the epileptic fit. The author admits that the remedy is most painful, but asserts that it is the only one capable of effecting a permanent cure. The pain caused by the burn is more apparent than real, at least during the operation, as epileptic patients are completely and absolutely insensible during the attacks. When, however, consciousness has returned, they feel the pain most intensely. In the treatment of children and youths, the author recommends the employment of milder measures before having recourse to such a severe remedy. He would begin by administering a strong vermifuge treatment for four consecutive days. Strict supervision should be exercised over the mode of life of the patient. He should be strictly forbidden to smoke. Should the fits return, two extemporaneous ammoniacal blisters should be applied to the calves of the legs during the attack. When the blister has formed, which is effected in thirty seconds, it should be kept open with an irritating ointment for fifteen days or more. Should this be found insufficient, the two raw surfaces should be deeply cauterized with caustic potash, always during the attack. If, after this cauterization, which is already rather severe, another attack comes on, recourse must be had, in order to obtain a certain and durable cure, to the decisive means, that is to say, to the hot iron raised to white heat and applied deeply to one of the calves of the legs during the attack.

The sulphate of quinine has, for many years, been successfully employed against uterine hemorrhage, from whatever cause. It has also been found useful in other forms of hemorrhage, in epistaxis, for instance, and the good results obtained have been generally ascribed to the effects of the quinine on the latent impaludism necessarily existent with the hemorrhagic diathesis. But Professor Grancher, who has advocated this remedy in all kinds of hemorrhage, repudiates this idea, and states that it is by its special action on the vaso-motor system that it produces its curative effect, independent of any paludal complication.

Professor Gosselin, the well-known surgeon, died on the 30th of April, after a long illness, in the seventy-second year of his age. He was for many years Surgeon to the Charity Hospital, Member and President of the Academy of Sciences, Member of the Academy of Medicine, and Commander of the Legion of Honor.

PARIS, May 4, 1887.

Translations.

THE RELATION OF DISEASE OF THE STOMACH WITH DISLOCATION OF THE RIGHT KIDNEY.—Before the late meeting of the German Medical Congress, Dr. Litten, of Berlin, read a paper of the above title. Dr. Litten makes a distinction between simple dislocations and dislocations with floating kidney. The right kidney is often displaced. In the case of floating kidney the organ lies tilted up in the abdomen, and is capable of making the widest excursions upon the mesenephron. It may by its movements produce severe pains and vomiting in pregnancy, especially when there are present strong attachments. The frequent co-existence of dilatation of the stomach and movable kidney is well known. Dilatation of the stomach is not infrequently found in men, such as car-drivers, railroad men, builders, and others, whose calling requires them to take their voluminous and at times unnatural food very rapidly.

In thirty-three cases of dilatation of the stomach Litten has found displacement of the kidney seventeen times. The dislocation was generally upward, between the posterior wall of the abdominal cavity and the upper surface of the liver, and resulted, as the writer thinks, in driving the overlying part of the duodenum directly upward. The stretched ligamentous attachment with the liver is liable to dislocate this organ by displacing the diaphragm. The dislocation will be great according to the length of the renal artery.

Litten has made a number of autopsies, and, from all appearances, comes to the conclusion that dilatation of the stomach has for its determining cause dislocation of the kidney. In such cases he has had good results from washing out the stomach.

Dr. Nothnagel, of Vienna, found in the course of three months sixteen cases of dilatation of the stomach with dislocation of the kidney. He, however, regards this as rather a coincidence than as having a causal relation, for he has also found in many cases not only no dilatation of the stomach, but on the contrary even insufficiency. There may be first the floating kidney and then the stomach trouble.

ANTIPYRIN AS AN ANTIDOTE TO PAIN.—At the Session of the Academy of Sciences, April 18th, M. Germain Sée read a memoir upon the antagonism of antipyrin to pain. The hypothermic property of this medicament presents now interest secondary to that of the remarkable influence it exerts upon the element of pain. In paroxysms of acute or chronic gout, in the attacks of mild forms of rheumatism, the pain disappears rapidly under the influence of sixty to ninety grains of antipyrin administered every day for a week. But it is in nervous troubles, especially in which disturbances of sensibility occur, that antipyrin produces its most marked effects. Facial neuralgias and migraines yield readily under its influence. The darting pains which mark the initial stage of locomotor ataxia are calmed by antipyrin not less than by acetanilide. The former substance has over the latter the advantage of being managed more easily and of being less dangerous. The agonizing pains of heart disease, such as troubles of the aorta and the cardiac arteries, yield under the influence of sixty to ninety grains of antipyrin. This valuable medicine ought always to be administered in doses of fifteen grains, at intervals of from one to three hours, in half a glass of ice-water. The most serious inconvenience in its employment consists in an eruption like that of scarlet fever, but which readily disappears.

Experiments made by M. Gley upon animals show that antipyrin produces a veritable antagonism in the member into which it has been injected. It appears to act on the nerve terminations. However that may be, antipyrin is a most efficacious and harmless remedy for pain. *Le Progrès Médical.*

Hemisection of the Medulla.—In the Society of Biology, September 23d, Dr. Brown-Séquard, in relating some previous experiments of his upon hemisection of the medulla, stated that sensitive transmissions may still be accomplished after a complete section of this organ, provided the section is made at different points. The transmission is made by a true psychological labor, for there are in the medulla, as in the cerebrum, true intellectual centers, and the preservation of some fibers, which pass from one side to the other between the cuts, suffice to insure the passage of the currents.

Dumontpallier said that he had cured intercostal neuralgias by the spraying of ether on the opposite side, a veritable inhibition of dynamo-genesis.

M Brown-Séquard replied that he was happy to see that clinical facts were supporting his theory.

M. Dastre desired that Brown Séquard, who had done so much for the theory of inhibition, would be kind enough to indicate the path along which this acted, its point of departure, and the point reacted.

Brown-Séquard replied that there is no particular path for inhibition in the nervous system, but that all communicates and all acts upon all.

Laborde attributed to the theory of dynamogenesis certain facts relating to the suture of nerves in consequence of traumatic sections.

Brown-Séquard replied that the irritation of sensitive nerves at the locality of the injury brought about the changes of sensibility of the parts innervated. Therefore surgeons who open the cranium to search for tumors, which they suppose occasion epileptic troubles, should stop at the incision of the integument. In the case of rabbits, in fact, epilepsy is cured by sections of the epileptic zone, or even of the points which are the seat of the aura.—*Ibid.*

Experimental Epilepsy.—(Dr. Unverricht, of Jena.) In regard to the question whether there is a spot in the central nervous system from which an epileptic discharge is released, difficulties have arisen in the attempt to attribute epileptic attacks and anemic convulsions to the same cause. Helzig has done valuable service in showing the dependence of convulsions on disturbances of the cortex. Unverricht, in 1882, set forth that the motor region for muscular cramp is of greater extent, and this view he has more recently confirmed by experiments on dogs. The extirpation of the cortex must not be too limited. If the centers underlying the cortex are irritated, cramps occur like those of epilepsy. The convulsions which occur in the latter part of an attack on the side opposite to the one irritated are to be regarded as reflex secondary convulsions, and are not calculated to set aside the cortical theory.—*Deutsche Med. Zeitung.*

Fireball in Leprosy.—On the recommendation of a student, Dr. Don Joaquin Rodriguez, in the Hospital of Mexico, used a strong decoction of a native plant, cultivated there in the gardens, under the name of *bola de fuego* (fireball), in the treatment of muscular leprosy, with success. From one to two pints of the decoction are given daily. No attempt was made to isolate the patients, the physician not regarding this form of leprosy as contagious.—*Gaceto de Mexico.*

RHYTHMIC MOVEMENTS OF THE HEART.—MM. Germain Sée and E. Gley (Academy of Sciences, March 25th) communicated the results of their experiments with regard to the rhythmic movements of the heart. They recall the researches of Kronecker and Schmey, who, in 1884, discovered at the lower boundary of the upper third of the anterior inter-ventricular groove in the heart of a dog that there is a point of crossing for the paths of innervation, where they form a center of co-ordination for the ventricular movements. If the tissues at this point are pierced with a needle, very intense contractions of the ventricles are at once produced. These contractions are disordered and irregular, and, gradually becoming more feeble, shortly cease, while at the same time, as the ventricles dilate, the auricles continue to beat rhythmically. The arterial pulse disappears immediately that the blood pressure falls to zero. Faradization at this point elicits the same effects as the introduction of the needle. The results are still the same if the electrization is exerted upon the walls of the ventricles. There seems, then, to exist *un noeud vital* of the heart, but its functional nature remains as yet undetermined. These facts may contribute to establishing the pathogeny of angina pectoris. If by the obliteration of a coronary artery there ensues irritation of the mass of nerve cells placed in the inter-ventricular groove, the contractions of the heart may be transformed into disordered oscillations, becoming rapidly fatal.—*Le Progrès Médical.*

CALORIMETRY IN INFANTILE DISEASES.—At the same sitting M. P. Langlois referred to the results of his researches on calorimetry in the diseases of infants. His investigations, made with the calorimeter of M. Richet, were made for the purpose of determining whether hypertrophy in fever is due to a greater production of heat or a diminished loss. M. Langlois has observed that in chronic diseases, with hypertrophy, there is a diminution of the production of caloric, and that in diseases with hypertrophy there is a perceptible augmentation in the production of heat. Thermogenesis, therefore, and temperature appear to be in direct correlation in disease.—*Ibid.*

Abstracts and Selections.

BERGEON'S METHOD OF TREATING PHTHISIS BY GASEOUS ENEMATA.—(Francis J. Crane, M. D., of Chicago, Illinois.)—Dr. Bergeon, who inaugurated this method, published a few months ago the first results obtained in the treatment of pulmonary phthisis by this method. Physicians of Lyons, Paris, Geneva, and Marseilles, who have treated phthisis by the method, have generally obtained a very rapid disappearance of the phenomena of pulmonary suppuration, and a progress toward a state of health with all the signs of cure.

Concerning the patients I have treated by this method, I can now assert that the results I predicted three months ago have been achieved. The patients that I considered cured have no more expectoration, and give on auscultation stethoscopic signs which denote the presence of quiescent cavities or cicatrized lesions. Some of these patients have been obliged to return to a life of labor; nevertheless their respiratory organs have stood the test, and the amelioration obtained has been permanent.

While many patients whom the expectoration once so exhausted now have only three or four grams of sputum a day, at the beginning of the treatment it was from two hundred and fifty to three hundred grams. We have found bacilli, it is true, in the sputa of these patients; yet it remains to be discovered whether these bacilli which continue to exist after the return to health have kept their functional activity or not. Whatever may be the mode of action of carbonic acid introduced by intestinal absorption in the venous blood and afterward expelled by the lung, it can be said from the observation of patients that this gas, filled with proper medicinal substances, greatly modifies the respiratory function and makes the hematosis more complete and easy. It gives a sensation of well-being, followed by an increase of strength and weight, a diminution of fever and night-sweats.

The following precautions must be observed in giving this treatment:

1. The CO_2 ought to be as pure as possible, so as not to inflame the bowel. That obtained by the reaction of dilute sulphuric acid on the bicarbonate of soda has always been perfectly absorbed by the bowel without producing any toxic effect.

2. The gas should be collected in a receiver from which the air has been expelled.

3. Make the injections just before a meal, or at least three hours after, and never when the patient is weary. It is necessary to be very cautious in experimenting with other medicinal substances, for if, although the sulphureted hydrogen is inoffensive, other agents, as tur-

pentine, chloral, ammonia, iodine, broma, ether, etc., may not be, and might be the cause of an inflammation of the intestinal mucous membrane.

It is not necessary that the dose be large; by injecting twice a day four or five liters of carbonic-acid gas passed through five hundred grams of sulphur-water, we rapidly notice the disappearance of all the phenomena of pulmonary suppuration, either in its acute or chronic state.

Bergeon's method has been successfully experimented with by Dr. Chantamesse, in his service at St. Antoine Hospital, during the months of August, September, and October. The following are his results: "Two patients brought to the hospital suffering with violent attacks of asthma were, half an hour after the injection with sulfo-carbon vapors, entirely relieved of the dyspnea. The treatment having been continued for a few days, the breathing was relieved and the attacks were not repeated during the time they remained." Nine patients giving general and local signs of pulmonary tuberculosis, with tubercular bacilli in the sputa, have obtained very great amelioration from this treatment. The increase of weight has been rapid, one pound and sometimes as much as thirty-five ounces a week; cough and expectoration have largely ceased. We always find the baccilli in the sputum, however. These patients have been under treatment for one month and a half. One of them has increased nine pounds in weight.

I have used this treatment with four cases; two of phthisis, one of intussusception of the bowel, and one of spasmodic croup. With the croup and intussusception it operated like a charm, overcoming both almost instantly. In the case of croup, I used the bisulphide of carbon, and in half an hour the little patient was sleeping, apparently as well as ever.

Case 1. Mr. W., aged twenty-six. Two sisters and a brother died of phthisis. He had been treating with various physicians and changing climate (having been to Colorado twice) for over three years. The right lung was nearly useless, as it contained a cavity corresponding to nearly if not quite half of its original capacity. Nowhere on this side could vesicular respiration be heard, while the left apex likewise yielded unmistakable signs of disease. There were edema of the feet, incessant cough, broken sleep, watery stools, and ravenous appetite, although he could not retain any thing on the stomach; temperature, 102° F. After the first injection of bisulphide of carbon, given in the evening, he slept well for three hours and was bothered very little with cough, but on rising in the morning, to use his own words, came nearly strangling for want of a cough, which he finally got, and expectorated a pint with the one paroxysm. I then used the sulphureted hydrogen water, and he improved very fast; in one week he had a normal temperature; night-sweats almost entirely stopped, expectoration was much less, and he was able to wear his shoes, which he had not been able to do for over six weeks. Unfortunately, however, at the latter part of the second week he ventured out in one of our rainiest March days, took cold, and his death, two days later, cut short the record of what might have proven almost a miracle.

Case 3. Mrs. W., aged thirty-four, widow, having lost her mother and sister from phthisis, applied to me for some heart trouble. Complained of a dizzy sensation on rising from a recumbent position; feet swollen some, hectic flush, considerable dyspnea, slight cough with no expectoration. Diagnosis: Incipient phthisis with heart complications. She had noticed, also, for about a week some night-sweats, which did not last, however, after the second administration of gas. She improved so rapidly that she only made seven visits in all, and pronounced herself cured. There is, however, no doubt but she will have a return of symptoms upon the slightest provocation.

This comprises all my experience, but these are facts, and facts are stubborn things to deal with. In regard to the best mineral water, I wish to say that, after trying the Lafayette, Ind., the Blue Lick, Ky., and the Ypsilanti, Mich., mineral waters, I am satisfied that the Ypsilanti mineral water is just what we want. It contains twenty cubic inches of gas to the gallon, and is so strongly impregnated with it that I use it over the second time by having solid rubber corks to replace the perforated ones when I have got through using the apparatus. Mr. St. Clair, President of the Company, 88 Randolph Street, has kindly furnished a case of twelve quarts of the water, which I have forwarded to Dr. Bergeon, in hopes that it will compare favorably with the Eaux Bonnes water which he is using. I have also had an apparatus made by E. H. Sargent, which I think takes the place of Dr. Morel's very well, differing from it only in point of cheapness, costing but a little more than one half the former.

The true place of this mode of treatment can not be established until the experience of careful observers has been given us, years hence. I wish, therefore, to urge the profession to investigate the matter fairly, since time, I am confident, will prove that Dr. Bergeon has been one of the greatest benefactors of the age.

Dr. Edward T. Bruen communicates the following to the President of the Chicago Medical Society:

The experience thus far obtained in the Philadelphia Hospital in the use of Bergeon's treatment of consumption by rectal injections of carbonic-acid gas impregnated with sulphureted hydrogen has been highly encouraging.

In the Medical News, of April 2, 1887, a statement of clinical results thus far secured in my wards was presented. These results indicated that the element of suppuration in pulmonary phthisis was usually very positively influenced. The night-sweats have been controlled in twenty-five cases without an exception. The temperature has been modified even in the most advanced cases, and in some instances in which the disease has been extensive it has been brought to a normal point. A peculiarity of the temperature charts seems to be an introduction of a subnormal temperature in the forenoon. The expectoration has been lessened in all instances, and in some has disappeared. A marked impression has been made for the better on the nervous symptoms which attend the disease, and a more cheerful and sanguine spirit has followed the therapeusis.

It would seem justifiable to conclude that we have a most important therapeutic agent in the gas-enemata treatment. One case of acute broncho-pneumonia treated on this plan has recovered, and will be discharged from the hospital. The history of her case has been already stated in the article in the Medical News. Another case of phthisis with pneumothorax, under treatment for five weeks, is so much improved that the patient insists on her discharge. The *râles* have disappeared from this patient's chest (the pneumo-thorax was local and confined to the lower zone of the right thorax); the opening into the lung has apparently closed and retraction of the chest wall is going on. This patient had been ill for a year previous to admission to the Philadelphia Hospital; the pneumo-thorax was noted on admission. She has gained over nine pounds of flesh, expectoration has ceased, sweats abolished. The cough, however, continues as a modified symptom, since she is as yet merely a case of phthisis in stage of arrest, the bacilli of tuberculosis being still recognizable in the sputa.

Two cases of commencing phthisis with moist *râles*, dullness of percussion, harsh breathing, deficient expansion over right upper lobe, and tubercle bacilli in sputa, have recently been placed under the treatment. In these cases the gain in one week has been most material. The *râles* have disappeared and the patients express themselves as benefited. The method of treatment is surely worth a careful scientific investigation.

In our hands a solution of five grains sulphide of sodium and five grains chloride of sodium in twenty-two ounces of water has proven the most satisfactory substance to produce the sulphureted hydrogen. A solution more strongly impregnated with sulphureted hydrogen has not only been more advantageous, but seemed injurious, apparently inducing pallor, loss of appetite, and in some cases irritation of the bowels. The gas should be introduced slowly, not less than half an hour seems requisite for each *séance*. From three to five quarts can be introduced in most cases, a gain in the tolerance of the necessary distension of the bowel being rapidly acquired. The absorption of the gas from the bowel is very rapid and in half an hour the distension will entirely subside. It is sometimes introduced more rapidly, but the gain is in proportion to the time consumed in giving the gas. The carbonic acid can be pumped through the solution containing the sulphureted hydrogen by the aid of a ball with valve attachment, and a circular received from Paris mentions an apparatus made by Shet, 79 Rue Phillippe de Girard, on which an indication is placed to register the flow of carbonic acid. A convenient apparatus is now furnished by Evans, 1104 Chestnut Street, Philadelphia.

We have not obtained as yet satisfactory results from the examination of urine, or breath, nor of the effect of the treatment upon the bacillus of tuberculosis.—*Transactions Chicago Medical Society, April* 18, 1887.

NEPHRO-LITHOTOMY.—An important discussion took place in the London Clinical Society, March, on nephro-lithotomy. The matter was brought forward in a paper read by Mr. Morris. Dr. George Johnson had already given over five cases to surgery, and all were cured by nephro-lithotomy. Dr. Knowsley Thornton operates by an exploratory abdominal section, and, if a stone is found, makes a separate clean incision in the loin for its extraction. In 1883 this combined method was first successfully practiced. Mr. Morrant Baker referred to a case where, in 1881, he had drained a large hydro-nephrosis through a wound in the loin. The resulting lumbar fistula so distressed the the patient that a year later nephrectomy was successfully performed. Mr. Godlee disapproved of the "combined operation." Mr. Pearce Gould had found 25 cases of nephrolithotomy for *simple* renal calculus, with two deaths; 66 cases of calculus pyelitis had been submitted to operation; 44 by nephrectomy; 34 by lumbar incision, with 19 recoveries; 10

by abdominal incision, with 5 recoveries; 16 by nephro-lithotomy; 13 lumbar, 6 recoveries; 3 abdominal, all fatal; 6 by nephrotomy, with 4 recoveries. Mr. T. Smith doubted whether in all cases, even with the "combined method," it would be impossible to overlook a stone. He favored treatment by the drinking of large quantities of waters. Mr. Henry Morris spoke strongly in favor of the lumbar operation, and of greater care in the diagnosis of the condition.

Whitehead, of Manchester, brought before the surgical section of the last British Medical Association annual meeting, a paper "On three hundred consecutive cases of Hemorrhoids cured by Excision." The operation consists in cutting boldly away all the circumferential protruding ring of pile tissue, saving skin and mucous membrane, which are stitched together. He says all the "pile-bearing" tissue is completely removed, bleeding is slight in amount, either primary or secondary, recovery is rapid—ten to twelve days—and recurrence almost impossible.—*Birmingham Med. Review.*

Rupture of the Urinary Bladder.—This subject was brought before the Royal Medical Chirurgical Society in February. Mr. Morris read notes of a case where this condition had twice occurred, the first time as the result of an injury, the second time—seven years after the first—by the giving way of the cicatrix. A *post-mortem* examination showed that the injury of nearly eight years before had been one of intra-peritoneal rupture, and that the second was due to the giving way of the dilated resultant cicatrix. Mr. Bennett read a case of "Extra-peritoneal Rupture, the direct result of aspiration above the pubes." He submitted the following propositions: (1) That aspiration is safe only in healthy bladders. (2) In old-standing strictures the bladder walls are abnormally soft, aspiration is inadmissible—perineal puncture is the operation. (3) Aspiration is risky where urine is foul. (4) Tapping is safer with a large trocar and canula in any disease of the bladder walls. (5) After aspiration, supra-pubic pain, dullness and rigidity call for median incisions and perineal drainage. Bryant referred to two fatal cases following aspiration and Humphrey to one.—*Ibid.*

Belladonna and Opium in the Treatment of Diabetes.—In a communication to the French Academy of Sciences M. Villemin relates the good effects produced by opium and belladonna in a case of diabetes, the symptoms of which were unusually severe. The urine passed daily amounted to fourteen liters, and the sugar was estimated at eight hundred and forty-one grams. The treatment was commenced by giving 0.10 grains of extract of belladonna with 0.05 grains of extract of opium daily. In seven days the urine was diminished by four liters, and the sugar to four hundred grams. In three months the amount of urine passed daily had fallen to from three to four liters, and the sugar had been correspondingly lessened. The doses were now slightly increased, and in a month's time the sugar completely disappeared, and the urine reached the normal amount. Narcotics were now suddenly stopped, and in two or three days the amount of sugar passed reached sixteen grams. The narcotics were recommenced, and during their continuance the amount of urine remained normal, and the sugar was not present. The man quitted hospital seven months after admission, having gained sixteen pounds in weight. Pavy in 1869 (B. M. J.) recommended opium for diabetes, and mentions one case in which opium produced a perfect cure.—*London Medical Press.*

The Physiological Action of Turpentine. With regard to the physiological and therapeutical action of turpentine there appears to be a considerable discrepancy of opinion. Some writers affirm that when taken internally it exercises an important deoxidizing effect on the blood; others, that it acts simply as a disinfectant, a vascular stimulant, and a sedative to local nerves; that, when given internally in full doses, it produces depression, its depressant effects following closely on the reflex stimulating effects, especially on the nerves and vessels of the stomach. I do not think either view explains its therapeutic action, and I must say I have not seen any of the disagreeable effects after its persistent use noted by others, such as languor, debility, eruption of the skin, and irritation of the urinary organs.—*Dr. Jabez Hogg, ibid.*

Electrical Aids in the Treatment of Insomnia.—Simple anodic faradization of the occiput is frequently attended with most gratifying results. In making this application the cathode should be placed in the position least likely to give rise to sensation (on the heel is preferable, but *not* on the thin skin of the instep), both poles being well moistened. The current is increased at once from the initial weakness to a strength that is distinctly felt at the anode, and is not increased further, notwithstanding the rapid fading of the sensation as the nerve ends become tolerant of the stimulus, for a gradually increasing faradic current is any thing but sedative. The full effect of this application requires that the note emitted by the hammer of the interrupter shall be clear and free from quavers due to irregular vibrations.—*Dr. G. B. Massey, Medical News.*

Action of Saline Purgatives.—M. G. Leubuscher offers the following conclusion, in regard to the action of saline purgatives, after a series of experimental researches in this line:

1. That an exaggeration of the peristaltic movement of the intestine only plays a secondary part in the action of saline purgatives.
2. In whatever manner saline purgatives may be introduced into the intestine, the intestine becomes the site of a great secretion of liquid, which is the principal cause of the purgative action.
3. It is impossible to claim for saline purgatives that they act as a barrier to re-absorption.
4. Saline purgatives introduced into the circulation in sufficient quantity produce constipation.—*Edinburgh Medical Journal.*

Ointment for Ocular Neuralgias.—For the relief of severe orbital pain following iritis, hyperesthesia of the retina and neuralgia of the eye-balls, Dr. L. Webster Fox, of Philadelphia, prescribes the following ointment, which, he informs us, he has found to be of exceptional utility:

Morphia sulph	grs. iv;
Chloral	grs. x;
Cocaine	grs. xx;
Menthol	grs. xxx;
Lanolin	℥j.

Sig: Apply a piece the size of a hazelnut to the temple and over the brow every hour.—*Medical and Surgical Reporter.*

Esophagotomy.—At a recent meeting of the Academy of Medicine, Ireland, Mr. Barton read a paper entitled "Esophagotomy for the Removal of Foreign Bodies." He referred to the removal of a foreign body impacted in the pharynx or esophagus as a safe and justifiable operation in cases where removal through the mouth was difficult or impossible to effect. He spoke of the reasons which had probably combined to deter surgeons from performing it more frequently, and detailed the case of a child from whom he had removed by pharyngo-esophagotomy the steel roller of a sewing-machine, which had been imbedded in the pharynx, opposite the cornu of the hyoid bone, for three months. The foreign body, which was larger in diameter than a sixpence, could be felt in the neck, and was safely and easily removed. The child made a good recovery, the greatest difficulty encountered the feeding of the patient, which was troublesome, owing to the tendency of the food to come through the wound, which did not heal for some time. This was overcome by feeding through a stomach-pump introduced through the wound. Mr. Barton called particular attention to this plan of alimentation, which he considered would prove of much value in the after treatment of cases of this class.—*London Lancet.*

Pure Cromic Acid.—A new form of cromic acid, prepared by Merck, and alleged to be absolutely free from sulphuric acid, and hence very slowly deliquescent in dry air, is now procurable. The acid is in the form of small dry red crystals, readily soluble in water and in alcohol. It is said that the acid in this form does not spread over the surrounding tissue, and is therefore better suited for use in places where it would be dangerous to employ the ordinary acid.—*Medical and Surgical Reporter.*

Infantile Constipation.—A very successful remedy for this is podophyllin in small doses; iridin may be combined with it with good effect. Make a tincture of the following: Podophyll. resin, eight grains; iridin, five grains; spt. ammon. arom., one dram. Digest for several days, and filter. From one to two drops of this may be given at bedtime on a small piece of loaf-sugar, or the dose may be combined in mixture along with syrup of orange. This is the dose for a child of one year and under.—*New York Medical Record.*

Creosote Treatment of Phthisis.—Dr. Sommerbrodt, who claims so much for the creosote treatment of phthisis, uses the following: Creosoti, 1.0; tr. gentian, 2.5; spts. vini rect., 25.0; vini xeric., q. s. ad 100. M. Sig: One ounce *t. i. d.* in a wineglassful of water. The creosote is increased gradually up to two grams.

Belladonna in Prurigo Senilis.—Belladonna given internally will often give very satisfactory results in prurigo senilis. It may be given with nux vomica, as follows: Extract. nucis vomicæ, extract. belladonnæ, each one fourth grain. Ft. pil. Sig: Take morning and evening.—*College and Clinical Record.*

Dr. A. Descamps, in *La France Médicale*, March 3, 1887, thus sums up the advantages possessed by the salts of cinchonidine: They are useful in all cases in which quinine is indicated. The sulphate of cinchonidine is better tolerated by nervous persons, and does not cause tinnitus, etc. They are less expensive.

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. III. SATURDAY, MAY 28, 1887. No. 11.

D. W. YANDELL, M. D.,
H. A. COTTELL, M. D.,
D. T. SMITH, M. D., - - - Editors.

A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

Books for review, and all communications relating to the columns of the journal, should be addressed to the EDITORS OF THE AMERICAN PRACTITIONER AND NEWS, Louisville, Ky.

Subscriptions and advertisements received, specimen copies and bound volumes for sale by the undersigned, to whom remittances may be sent by postal money order, bank check, or registered letter. Address

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WHY ADVERTISING BY PHYSICIANS IS FORBIDDEN.

It is frequently asked among the laity why physicians are not permitted to advertise their skill, and not seldom such questions are propounded by members of the profession.

A little thoughtful attention will show that there is excellent warrant for the course now required to be pursued, derived from a consideration of justice to the public and to the honorable members of the medical profession, and justice to the dishonorable ones for that matter, if there are such.

The merchant may advertise his calico, sugar, and coffee in any way he sees fit, for he can do no more in the long run by advertising than to call public attention to the fact that he has these commodities for sale. The customer will judge for himself, and if false assurance has been given, he will next time trade elsewhere. It is the same in every line where advertising is admissible. Even in law, where a larger latitude is given than in medicine, the abilities of the lawyer may be determined by his success in cases carried to appeal. But in medicine there is no such means of ascertaining the truth of the doctor's claims. The public does not know in the great majority of cases whether the correct diagnosis has been made or whether in any essential respect a correct report of a given case has been presented. The consequence is that an unlimited margin is left the reporter for falsehood. If, then, general advertising was permitted among physicians, the one who could air himself in the public eye with the least scruple of conscience and the greatest degree of dramatic skill would be the one to gain the largest success.

As it is, with the style of advertising in vogue, we know that not a few incompetent men owe their success to the use of means which a better sense of the physician's relationship to science and the public and a cleaner conscience would not allow.

THE FUNCTIONS, SOURCE, AND REGULATION OF THE LIQUOR AMNII.

In organic life there are very few structures that have not a varied morphology by which they are adapted to different purposes. In this respect the amnion will, upon careful examination, scarcely be found an exception. In the mammalia it probably performs a function different from what it does in the bird, and in all animals most likely diversified functions. In the bird the chief purpose it appears to fulfill is to protect the embryo from rapid external changes, to keep the cutaneous secretions of the fetal bird separate from the nutrient pabulum in contact with it, and perhaps to retain a sufficient amount of moisture in the embryo to allow proper organic changes to take place, since absorption of the lime of the shell might allow the fluids of the embryo to transude too early by rendering the shell porous. It may form a receptacle also for the renal secretion. By the time the bird is ready to hatch all this fluid has disappeared. In the higher mammalia, however, the so-called amniotic sac continues to enlarge up to the time of parturition and the quantity of contained fluid to increase.

What regulates the amount of this fluid, and whence is it obtained in the higher mammalia? Various experiments have been made to determine the source of the liquor amnii, some of which seem to be in a considerable measure significant.

Without entering into a critical examination of these experiments, we would modestly say that we prefer to look for the source with our eyes shut. The sebaceous follicles we know are at work during intra-uterine life, as evidenced by the accumulation of the vernix caseosa. The sudoriparous follicles are also most likely at work, and likely pour out into the same cavity a large part of the amniotic waters. The kidneys furnish the rest, possibly supplemented to a slight extent by transudation from the umbilical cord.

The regulation of the amount accumulated is controlled by the requirements of the conditions favorable to the viability of the child, and these are, proper presentation and rotation of the fetus and dilatation of the os uteri during parturition.

It is not easy to say how far the facilities afforded by the liquor amnii to dilatation of the os depend upon its quantity, but it certainly performs a beneficial office in that regard.

All experience shows that vertex presentations in the right or left occipital anterior positions are most favorable for both child and mother; broadly, they are the most conducive to the welfare of the race. Now, if it should be shown that head presentations, and to a certain extent rotation, depend upon the presence of the liquor amnii, and that, too, in the average normal amount, we may find in this an explanation of the condition in which we find this secretion in the higher mammalia, and especially in man. Those who have read the Practitioner and News for the year past have already been supplied with the reasons we have to offer for the belief that head presentations are brought about by swimming movements of the fetus in the liquor amnii. Briefly related, they are these: When a human being swims in water and merely kicks out with his legs, without any effort to direct his course, he will go headforemost to the bottom. In the uterus the child uses the feet almost exclusively in his movements, and without aim, and therefore shows a continual tendency by means of these movements to dive downward to the outlet. The uterus, at first spheroidal in the lower segment, as pregnancy advances becomes conical at that point. When the child's head is placed in the lower conical segment it is apt to be retained there because the arms exert comparatively little force, while the movements of the legs tend to keep it there. If the breech happens, however, to get into the lower segment, every movement of the legs increases the diameter of the lower extremity of the ovoid and lifts it upward. If this theory is correct, we should expect that previous to the time of quickening head presentations would about equal those of the breech; keeping pace with the growing conicity of the lower segment of the uterus, the increasing kicking movements of the child and the accumulation within certain bounds of the liquor amnii, we should expect a steady increase in the proportion of head presentations up to the time of normal parturition. We should expect dead fetuses to show a larger number of breech and other untoward presentations than living ones. If the amniotic waters should be scant so that the child could not turn itself to dive to the outlet, or if the amount was greatly in excess so that it could easily fall over when it had attained its inverted position, we should expect also a smaller proportion of head presentations. Now it so happens that all these supposed facts are real facts and fit exactly into the theory. There may be other facts that overthrow it, but these are sufficient to create a presumption of truth in its favor. If then it is true, we have an insight into the reason why the amount of liquor amnii should be considerable and constant, as it is. Less or more would be destructive to both child and mother—would be detrimental to the race. Quadrupeds are subject to the same conditions, except that their natural walking movements cause them to swim upward, and so, while the child dives downward by its involuntary movements, the quadruped swims upward to the uterine outlet.

It may be also that rotation is somewhat favored by the fact of the uterus being filled with fluid, for the body in the fluid would turn with greater ease where extensive rotation is required than if it were in contact with the close-fitting uterine walls.

Notes and Queries.

Editors of American Practitioner and News:

American Surgical Association.—I know no more pleasant way of getting from the West to Washington than to take a section on a Pullman car at Louisville, and be hauled over the Chesapeake & Ohio Railway.

You leave at 7:30 in the evening, and reach Washington the next evening at 9:30, twenty-six hours. Darkness is fairly on when the train pulls out. Your berth is made up soon after starting; the road-bed is solid, and uninterrupted sleep is entirely possible. You wake next morning in the mountains. On looking out—if it be in the season—you see "a boundless contiguity" of green as the road takes its sinuous way along the Kanawha and New rivers. The "springing East" faces you, and after gilding the mountain-tops quickly bursts down their sides into the valleys, and the shadows fall all toward your home in the West. The verdure of the deciduous trees was still pale and tender. The few conifers yet remaining in the dense but stunted forest wore their wonted deep, somber green, and uttered the same mournful note they ever do when the wind sighs through their branches. Here and yonder bodies of mist gathered, rose, floated into the advancing light, and vanished. At intervals the blue smoke from the hut of a miner struggled upward, and, caught by the shifting currents of the higher air, swirled until mingled with the blue of the inviolate sky.

On you speed. A prolonged scream of the locomotive foretells a near stop. The conductor announces the breakfast-stand—"Thirty minutes for breakfast!" One minute would have sufficed to consume what was good on the table. The balance of the morning might have been spent wrestling with the beefsteak alone. At least so a fellow passenger told me. I had parted with my money and my temper at the same place some years before, and didn't care to repeat the experience. Breakfast is like Mr. Weller's estimate of "weal pie"—"a good thing if you know the lady wot makes it." For a long while now I have taken my commissariat in a basket with me, and have thus been altogether independent of meal stations. I understand the railway management will place a buffet car on this line within a few weeks. This being done, the journey may be made with uninterrupted pleasure. The scenery on no road which cuts through the Alleghanies is more varied or romantic. The valley of Kanawha, the Falls of Kanawha, the New River, the New River Falls, the mountains, the vales, the forests, the gaps, the canoñs, the defiles, the cliffs, the ever-winding and oft-rushing streams, the rills, the pastoral stretches, the mists, the clouds unite to give a picturesqueness to the route which is not exceeded any where in this country.

By the time you have finished your after-breakfast cigar you pass the famous White Sulphur Springs, five miles beyond which, at Allegheny, the mountains reach their greatest heights. Up to this point you have been gradually nearing the clouds. Here you begin to descend again. You are on the divide. The waters that you have encountered flow to the Gulf of Mexico. Those you now see flow into the Atlantic.

On you speed through mountain-tops, by rivulets that are soon to swell into rivers, by healing waters, by springs that are warm, and springs that are hot, and springs that are cold, each having its history and each its memories that go back into the far-off time. "Charlottesville! Passengers for Richmond change here," says the conductor. The buildings of the University of Virginia come into view. Monticello is near by. The dust of its former owner rests here beneath the shades of its trees. There are men still living about here who knew Mr. Jefferson in the flesh—his name represents to mankind whatever is best and broadest, deepest and highest, truest and purest in Democracy.

The day wanes; here and there begin to flicker the lights from the farm-houses, which grow nearer and nearer together, until they cease to be farm-houses, but grow into continuous lines of brick and mortar, the engine slackens its speed, and the train glides into the station at Washington.

And all this, and not one word about

THE AMERICAN SURGICAL ASSOCIATION.

Well, this is to follow: This body met at its appointed time, Wednesday, May 11th, in the library of the Surgeon-General's office. It was called to order by the President, Dr. Hunter McGuire, of Richmond, Va., at 11 o'clock. The attendance was large. Dr. J. Collins Warren came from Boston; Dr. T. G. Richardson represented New Orleans; Drs. Moses Gunn and David Prince answered for Illinois; Dr. Kinloch, for Charleston; Drs. Gregory and Mudd, for St. Louis; Drs. Conner and Dandridge, for Cincinnati; Dr. Mastin, for Mobile, while New York, Pennsylvania, and Maryland furnished a large contingent. It was a body of earnest men, who set about the work allotted them in a serious, business-like way.

The programme was good throughout. The President and Secretary laid us all under obligations for the manner in which they arranged it. If any thing, there were too many papers. They were certainly too long. Long papers imply short discussions, from the sheer lack of time; and discussions, when properly conducted, yield more interest and greater profit than papers alone can do. A very young man, if he have access to libraries and be of an historical turn of mind, may easily prepare a very long and tedious paper on any subject in surgery. It may contain nothing new; as a piece of musty lore, it may be very creditable to his industry and his research. But, read to his seniors, it may be most stale and unprofitable. Again, a very clever and a very worthy man may so handicap his productions with unimportant details as to make them drearier than a twice-told tale.

The Association suffers from both these classes of men. And yet both are essential in all well-organized associations. But some form of cloture should be adopted, lest they innocently become obstructionists. To our mind the best form of cloture consists in requiring all essayists, without distinction, to say their say within thirty minutes; in a word, in the fewest possible words. If a paper can not be compressed into the time named, then let it be given as an abstract, and papers in these days are more interesting in abstract than *in extenso*.

Measures looking to these reforms were introduced, and their good effects may be anticipated at the next meeting.

The President read, in a natural, agreeable way, a thoughtful, suggestive address on

THE NEED AND VALUE OF CO-OPERATIVE WORK IN SURGERY.

He held that progress in surgery could be more surely made by associated than by individual effort. He gave a number of historical examples illustrative of what has been accomplished by united effort, and urged that we avail ourselves of its potent influence. The life of one man is too short, he said, and his field of labor too narrow to enable him alone to settle many of the vexed problems in our science. The subtle influence of social and moral condition, of climate, season, individual, and race peculiarities, the surroundings of the patient, must all be weighed before conclusions can be reached. The more observers there are in the field, shaping their work to one end, the richer must be the discoveries which make professional life in the broadest sense worth living.

In the afternoon Dr. F. S. Dennis, of New York, read a paper on

THE EXPLORATION OF THE BLADDER BY THE SUPRA-PUBIC METHOD.

He illustrated it by wet preparations and drawings. It was both an instructive and interesting paper, but could well have been shortened by one half and made doubly valuable. As the operation is of much interest just now, I take space to copy the conclusions of the learned author of the essay:

1. The rate of mortality for the supra-pubic operation, performed with its recent modifications, compares favorably with perineal lithotomy, and also with litholapaxy, when the stone is over one ounce.

2. In addition to a favorable comparison in regard to the rate of mortality in litholapaxy in large stones, the important question of *recurrence* of calculi must not be forgotten. After crushing, the recurrence is estimated as one in seven cases, while after lithotomy, one in twenty-five cases. This fact is of great importance in estimating the relative value of the

two operations. Another important point is the question of emasculation, which can not result from the supra-pubic operation. Langenbeck believes that after the seminal ducts are cut, that sterility follows. Halberstadt reports eighteen lateral lithotomies in which the patients, after having grown up and married, but one of the number had issue.

3. Heretofore the high operation has been reserved for calculi above the average size, where other operations were inadmissible. If the supra-pubic method, with its recent improvements, be done in cases where the perineal section is employed, the results will be far more brilliant, which is to say, that the high operation, as now done, is a far more successful procedure than a reference to its early statistics would lead one to suppose.

4. It will not, however, supplant litholapaxy in cases of small and soft stones, but in large calculi the results are already far more favorable than those of perineal lithotomy.

5. The limitations of lateral lithotomy are narrowed by the introduction of the high operation, and future experience will limit the extraction of stone through the perineum to cases where a tight stricture of the urethra exists, demanding external perineal urethrotomy for its relief.

6. Supra-pubic cystotomy is a safe, reliable, and radical operation. It should be remembered, however, that in its present form it has not been sufficiently subjected to the crucial tests of time and experience to admit of accurate estimates of its value under all conditions. Enough has been done, however, to establish that in the removal of large stones and in tumors of the bladder it is unquestionably the better operation.

7. The revival of this operation and its application in cases of traumatism of the bladder has shown that surgical intervention can save life, when but a few years ago these cases were considered inevitably fatal. The two recent successes of Sir William MacCormac testify to this fact.

Finally, the rate of mortality by the supra-pubic operation, about nine per cent, is high as a surgical operation, but a low rate of mortality for an operation performed under the conditions in which this method has been employed. In considering this mortality two facts must be remembered:

1. Death in the majority of cases is due to septic infection, and not to the immediate effects of the operation. The use of more rigid antisepsis for the bladder should improve this rate of mortality. At present there is no ideal antiseptic especially adapted for vesical surgery. The attention of the Association is asked to this important point.

2. The largest and hardest stones have been reserved for the high operation. The patients have been, as a rule, in poor physical condition. Improvement in the details of bladder antisepsis and an extension of the limits of the high operation to include stones of smaller size but not to embrace those suitable for litholapaxy, and an earlier period of operation before patients are exhausted from chronic vesical irritation, will reduce the rate of mortality of supra-pubic cystotomy so as to compare favorably with any cutting operation for stone in the bladder.

My time and space being exhausted, I must close here. I will conclude in my next.

WASHINGTON, May 12, 1887. D. W. Y.

Editors American Practitioner and News:

TWO CASES OF UTERINE TUMOR.—I forward notes of two interesting cases of uterine tumors successfully treated.

In February I was called to see Mrs. W., aged thirty-six, of Decatur County. She had been married several years, and had borne two children. She had complained of pains in the back and hips, accompanied with uterine hemorrhage, which had increased gradually until she called upon her family physician for relief. He treated the case for ordinary menorrhagia, giving astringents and using cold applications. She grew worse, the flow draining her system constantly, and the pains in back and hips continued without permanent relief. When she came under my care I found her considerably emaciated, confined to bed with distressing pain in back and hips.

On examination I found a fibroid polypus about the size of a hen's egg. With the assistance of Dr. Hames I then, without much trouble, passed a ligature around the pedicle of the tumor and waited the result. In about three days we were gratified to find the tumor loose in the vagina, removed it, washed the parts out well with warm water, with a little carbolic acid added. In a few weeks she had made a good recovery, and was able to be up and attend to her household duties.

Case 2. I was called to see Mrs. H., of the adjoining county of Benton. She was a married woman, about twenty-eight years of age, had been complaining for some time with very much the same symptoms—pain in back and hips, with uterine hemorrhage. She had been treated by several physicians without any permanent relief. I examined her *per vaginam*, and found a small, rough, sensitive tumor just inside the os. The tumor was about the size of an ordinary hickory-nut, bled profusely, and was quite sensitive to the touch. I could not detect any pedicle. I could see the tumor partially. Its rough, jagged edges and tendency to bleed, as well as the pain which accompanied it, led me to believe that it was a malignant growth or about to take on malignant action. Attaching a sponge to a cane, I dipped it into perchloride of iron and applied it directly to the tumor. A few applications of this kind, with copious injections of warm water, with a little carbolic acid added, in connection with constitutional treatment, effected a complete recovery so far as the tumor was concerned. Her general health, however, had received such a shock that she gradually went into phthisis pulmonalis, and died a few years after.

J. H. TOWNES, M. D.

Huntingdon, Tenn., April 24, 1887.

Editors American Practitioner and News:

Mrs. C., aged eighteen years, mother of one child nine months old. Examination revealed, first, partial rupture of the perineum, the result of labor; second, an encysted tumor, sessile, developed on the posterior wall of the vagina, involving near its full length, the size of a hen's egg, protruding partly through the vulva, susceptible of replacement by taxis within the vagina. *Rectocele* was excluded by examination of the rectum; *enterocele* also, but not so easily, as Douglas' *cul-de-sac* was forced down, either by traction from weight of tumor below or by pressure of organs or tissues above, but the absence of Thomas' "peculiar sensation to the touch of a tumor filled with air," the absence of a "resonant sound on percussion" and failure to detect "peristaltic movements," the history of the case, and lastly, the contents of tumor, as shown by the exploring needle, excluded *enterocele*. There was also in the case anteflexion of the uterus, cervical endometritis, and hyperplasia of the organ or subinvolution.

I treated the perineal wound by vivifying the half-raw, half cicatrized surface, and approximating the edges by silk sutures; the tumor, by making a small incision and evacuating the thick, glairy liquid contents, and injecting a mixture made strong with carbolic acid and tinct. iodine, by means of a hard-rubber uterine syringe, first introducing through a small opening into the tumor the fenestral end of a three- or four-inch piece of No. 4 hard-rubber catheter, and joining the syringe, when loaded, to this by a short piece of small rubber tubing. After injecting I would allow the caustic liquid to escape, and then pack the vagina with an antiseptic tampon of surgeon's cotton and wool, with instructions to remove it in thirty-six to forty-eight hours. Repeated this operation once a week eight or ten times, with the result of obliterating the tumor so far as its cavity was concerned, but still leaving slight fullness from hypertrophy of the wall. The same treatment, tampon as a support, and pressure, corrected the displacement of uterus. By means of depletion of the uterus by slight blood-letting from its surface, and local applications of Churchill's iodine and glycerine on cotton, the hyperplasia and erosion were pretty well overcome.

S. T. M'DERMITH, M. D.

Cowden, Shelby County, Ill.

Editors American Practitioner and News:

Permit me to submit the following case for diagnosis: L. M., aged fifty-one years, large, stout, hearty farmer and hard worker, was attacked with a swelling occupying nearly all the right iliac region, very tender, and with paroxysms of intense pain running down the spermatic cord into the testicle. No swelling of testicle or retraction; no constitutional disturbance; bowels solvent, kidneys active, skin moist, appetite somewhat impaired. In about ten days the swelling began to subside and continued to do so until he attempted to resume work. At that time it felt to be about the size of a hen's egg, small and downward, and about one inch above pubis, immovable, and very slightly tender. On attempting labor the swelling recurred and attained to about the size it had when I first saw him, but still there was very little pain or tenderness. The swelling, very hard and unyielding, is subsiding again slowly.

Now, what ails the man, and what shall I do for him? As far as I am able to judge, negative answers may be given to all questions except those pertaining directly to swelling.

If from this imperfect sketch you can arrive at a satisfactory conclusion in the premises, I will be thankful for it.

W. A. LAKETT, M. D.

FLAG SPRINGS, MO., April 27, 1887.

Editors American Practitioner and News:

A negro man, aged thirty-five years, was struck with a hatchet, producing a compound fracture of the os frontis, the blade of the hatchet penetrating the dura mater. The patient had no treatment, was up and at work for three days after receiving the injury; but on the fourth day, about 10 o'clock A. M., he complained of having had a chill, suddenly became unconscious, and died about 10 o'clock P. M. same day.

At a *post-mortem* examination held by Dr. Bondurant and myself we found an abscess in the left front half of cerebrum, extending an inch and a half or two inches into the brain tissue.

I would much like to be advised whether, in the present state of surgical science, operative interference in such a case would have been proper and likely to have given a different result, as I have to answer this question at the next term of our circuit court.

CHARLESTON, MO. W. P. HOWE, M. D.

IN the case of Dr. Darby, which came up some months since in Morrow, Ohio, involving the right of expert witnesses to require extra fees before giving testimony, the circuit court has sustained the court of common pleas, which was adverse to Dr. Darby.

DR. KOCH.—A well-executed lithograph of the distinguished German investigator, Dr. Koch, has been received from Parke, Davis & Company, Detroit, Mich. Accompanying the likeness is a note, saying, "Your brother practitioners may obtain one of the same on application." We predict the supply will be quickly exhausted.

WHY ARE GYNECOLOGISTS THE MOST CONTENTIOUS OF MEDICAL MEN?—The reader of the world's medical journals will be struck with the fact that most personal contentions relating to practice now occur among gynecologists. America, Germany, France, and Great Britain are especially notorious for this battle. Why is this true? we asked of an eminent gynecologist. He replied that it all comes from "statistics." The fact he accepted as correct. Indeed he mentioned numerous instances that had escaped our notice.

But how does it come to pass that "statistics" make all this turmoil? Briefly, because statistics are used to show that one gynecologist cures more cases than another. Each advanced worker in this field endeavors to prove that he is the best man. Each rival strains every nerve to reduce the statistics of his rival and augment his own.

Then it is difficult, with the greatest care, to make statistics tell the exact truth. Thus, one man may make a hundred successful operations and be a less successful gynecologist than one who loses ten per cent of his cases, for the reason that he may select his cases, while the last operator takes all the bad as well as favorable cases. So, in a thousand ways, gynecologists deceive themselves, and attempt to deceive others by their statistics. In fact, the amount of lying gathered about statistics is appalling.

The importance of these statistics will disappear as the new methods of operating become crystallized and generally accepted by the profession. They are now in the formative stage and so in the field of contention. Unquestionably, out of it all will come the very best work possible. But of one thing all may be assured, all dishonest statistics will be rejected, and with them those who make them. Men may be mistaken and be forgiven, but deliberate falsification must work the ultimate professional ruin of its perpetrator. The truth will prevail against all odds, and it becomes each to be sure that he stands upon this platform. Hence, we may look upon this period of contention in gynecology as an evidence of its progressiveness and substantial advancement. So long as the strife is conducted in a gentlemanly manner, it is a source of enjoyment as well as profit to the rest of the profession.—*American Lancet.*

Diphtheria Caused by a Micro-organism?—Commenting on the recent paper by Mr. Watson Cheyne on Early Tracheotomy in Diphtheria, Dr. E. J. Edwards (British Medical Journal) says:

Diphtheria is here said to be "without doubt due to a micro-organism." I venture to say that in the present state of our knowledge of diphtheria this last conclusion is premature. Even if a particular micro-organism were discovered to be always associated with diphtheria, and to be capable of giving rise to a fatal disease, more or less remotely resembling diphtheria in animals, it would not necessarily follow that such an organism must constitute the sole etiological factor in the causation of diphtheria. Other elements in the causation might be equally important—for example, climatic, constitutional, or otherwise. But no such micro-organism has been found in diphtheria. Certain bacilli are described by Loeffler under the heading "Kleb's bacilli" (see abstract by Mr. W. Hime in Micro-parasites in Disease, New Sydenham Society, 1886, page 457, the volume edited by Mr. Watson Cheyne himself); but Loeffler acknowledges that it is "impossible to say" whether they are to be looked upon as the "specific cause" of diphtheria or not. They were not found in all typical cases, they were sometimes found in the alveoli of the lungs and in the liver, and they have been found in the saliva of a healthy child. As there were presumably no signs of changes due to them in the pulmonary alveoli and the liver, Loeffler "is of opinion that their presence there was due to *post-mortem* changes." On the other hand, these bacilli, when inoculated into some animals, have "the same effect as the diphtheritic virus," namely, they produced a false membrane, and also internal hemorrhages; on other animals they had no effect. After six pages are devoted to the account of these bacilli, an important communication occurs in a foot-note: "The second part of Loeffler's paper is taken up with the description of diphtheria in pigeons and calves, in which other forms of bacilli are present, which are in all probability the cause of the disease."

The micrococci are dismissed early from consideration, although they, too, have once had their champions. It is noteworthy that in some animals the bacilli did not kill by the development of toxic ptomaines, but simply by the mechanical effect of the false membranes.

Such is the case at present. No particular micro-organism can be shown to be established as yet in any causal relation with diphtheria in man. But if such were discovered, and if, after successive cultivations, it could reproduce the original disease, even this would not suffice to establish it as the sole cause, as already remarked. For, take tuberculosis: In this disease a micro-organism (Koch's bacillus) is always present. This is so universally agreed upon that the axiom has arisen, "without the bacillus no tuberculosis." Further, after any number of pure cultures in nutrient media, these bacilli can be shown to have the power to produce tuberculosis (in animals), so that apparently there is no room for any doubt that the bacillus tuberculosis is the cause of tuberculosis. And yet when these undoubted facts derived from bacteriological science are brought to the test of clinical observation, they are found wanting to explain the phenomena of phthisis, the most frequent example of tuberculosis. Dr. Douglas Powell, in his recent new edition of his work On Consumption, etc., considers it not as yet proven that Koch's bacillus is the sole cause of phthisis. And Biedert (*Berliner Klin. Wochenschr.*, 1886, page 715) ably sums up the objections to the bacteriological view, and ends by stating that in his firm opinion a previous or current chronic pneumonia is an essential element in the etiology of all cases of pulmonary tuberculosis, thus going back to the views of Niemeyer on the subject, *plus* the bacillus. In fact, the medical world is at present divided into two opposing camps, namely, for and against the bacillus.

How much more then should we hesitate before accepting the statement that "Without doubt the disease is due to a micro-organism?" This is bold. "Most probably to a bacillus." This is guarded. But to speak thus: "Apparently, according to Loeffler's researches, the virus of the disease [the bacilli] does not penetrate," etc., is to be bold and guarded at the same time. The virus and "the" bacilli are associated (the bacilli being put in brackets), and the whole question is bagged.

Quinine Amaurosis.—Dr. Edward Browne, of London, has lately collected eighteen cases of quinine amaurosis. The symptoms were blindness and deafness of a marked character. The deafness was brief in duration, and the recovery rapid. The onset of the amaurosis was sudden and more complete than was known in any other recoverable condition. It resembled the dense darkness of atrophy.

Hyperemia of the retina is a very common malady these days. It may be a transient affection depending on overwork of the eye, or upon a deranged state of the stomach. In these circumstances the congestion passes away so rapidly that it is not likely to attract attention from either the surgeon or the patient.—*Dr. Benj. J. Baldwin, Alabama Medical and Surgical Journal.*

Dr. Lauder Brunton and Homeopathy. Faithful to his promise, Dr. Brunton has taken advantage of the opportunity afforded him by the appearance of the third edition of his work on Pharmacology, Therapeutics, and Materia Medica, to repudiate the charge which interested parties have brought against him of having appropriated homeopathic remedies (?) without so much as a word of acknowledgement. He points out that homeopathy consists not in the possession of this or that medicinal agent, but in the principle upon which it is used. The mere fact that certain drugs were or were not first employed by men professing to practice on homeopathic principles is altogether irrelevant and beside the point. Just as homeopaths can prescribe mercury or opium in homeopathic doses, and in accordance with Hahnemann's formula, so an ordinary practitioner can employ actea racemosa or any other drug upon which homeopaths pride themselves without rendering himself amenable to the charge of trespassing on reserved ground. The essence of homeopathy as established by Hahnemann, says Dr. Brunton, lies in the infinitesimal dosage and the universal application of the rule *similia similibus curantur.* It is the falsity of the claim which homeopathy makes, to be in possession, if not of the universal panacea, at least of the only true rule of practice, that makes homeopathy a system of quackery. It is to be hoped that, in face of this emphatic disclaimer, those persons who have for some time past striven to claim Dr. Brunton as "one of theirs" will cease their machinations, which can serve no useful purpose and are at most a source of annoyance.—*Medical Press and Circular.*

Massage by the Blind.—The Therapeutic Gazette calls attention to massage as an employment especially suited to the capabilities of the blind, in whom the tactile sense is so strongly developed, and remarks that, in Japan, massage has been for a long period of time practiced by blind men, who go about the streets with a flageolet to call attention to themselves and their occupation. It adds the hint that superintendents of blind asylums will do well to consider this as a possible avenue for labor for their pupils.

Pickle for Pathological Preparations. Prof. Grawitz, of the Berlin Pathological Museum, has, since April, 1885, been making use of a pickling liquid for the preservation of pathological specimens, and after two years' test speaks enthusiastically of its usefulness. The liquid is prepared as follows: 150 grams of common salt, 40 grams of sugar, and 20 grams of saltpeter are dissolved in 1 liter of water. This solution is acidulated by the addition of three per cent of boric or tartaric acid. The acid is necessary on account of the decomposition of the hemoglobin in the tissues. When the preparation is placed in the liquid, water is added until the object sinks in it. The pickle is ready in from four to eight weeks, when the objects are taken out and placed in fresh clear pickle. The quantity of water that requires to be added is from one third to one half. The vessels should be filled brimful, so that when the cover is placed on no layer of air should remain under the cover; the cover should touch the liquid.—*Medical and Surgical Reporter.*

DECADENCE OF HOMEOPATHY.—We have the authority of the Medical Record that a prominent publisher of a regular medical book sells more books proportionately to the homeopaths than to regular physicians. The fact is but an addition to the accumulating evidence of decadence of homeopathy as a system of therapeutics. The number of consistent homeopaths whom the public regard as such is rapidly growing beautifully smaller, and the time is not far distant when only cranks and men who sail under the name as the pirate sails under the flag of an honest merchantman will fly the legend homeopathy on their shingles.—*The Medical Age.*

RUPTURE OF THE HEART.—D. G. Crawford, M. B., Surgeon I. M. S., writes, in the British Medical Journal, an account of a *post-mortem*, done upon the body of a Hindoo beggar, run over by a wagon, which, with but little sign of external injury, revealed extensive internal injuries. On opening the chest, the sternum was found to be completely fractured transversely, and, though the pericardium was untorn and healthy in appearance, the heart was found lying loose in its cavity, having been torn away from all the great vessels. The spleen was ruptured in two places.

TRICHINÆ AS A CAUSE OF MUSCULAR RHEUMATISM.—It is stated on the authority of Dr. Grawitz, an assistant of Dr. Virchow's, that in as many as one third of the cases of so-called muscular rheumatism which have been examined *post-mortem*, the presence of *trichina spiralis* has been demonstrated. In many of these cases the parasites must have been present in the muscles for many years.

THE COCCUS OF GRANULAR LIDS.—Dr. E. Schmidt is stated to have succeeded in finding the micro-organism described by Sattler in granular lids (trachoma), which, he says, is very similar to staphylo-coccus pyogenes. By cultivating this coccus he succeeded in inducing granular lids in dogs and cats.—*London Lancet.*

PHYSICIANS' PROTECTIVE ASSOCIATION.—The physicians of Columbus, Ind., have organized a "Physicians' Protective Association," the object of which is to protect themselves from those who are able but will not pay doctors' bills.

"DISEASE" is the name given to one of the swift yachts of the Burlington Ice Yacht Club. The Disease must be a kind of running disorder—possibly mastitis.—*New York Medical Record.*

DR. PRUDDEN has been examining the ice supplied to New York. He finds on an average in a cubic centimeter twenty thousand and thirty-three living bacteria. In one specimen he found thirty thousand.

PROFESSOR THEODOR BILLROTH, of Vienna, and Sir Spencer Wells have been elected honorary members of the German Society for Surgery.

ANTITHERMIN is the latest introduced antipyretic agent. It is allied in its chemistry to antipyrin; phenylhydrazinlevulinic acid is the chemical name.

THE Florida Medical and Surgical Journal has retired from independent existence, and incorporated itself with the New Orleans Medical and Surgical Journal.

DR. E. C. SPITZKA, of New York City, has accepted the vice-presidency of the Section of Anatomy of the Ninth International Medical Congress.

THE American Orthopedic Association will hold its first annual meeting in New York City, on the third Wednesday in June.

THE American Neurological Association holds its thirteenth annual meeting at Long Branch, N. J., on July 20th, 21st, and 22d.

SPECIAL NOTICES.

HYPODERMIC INJECTION OF LISTERINE.—There is one mode of its administration (the hypodermic) to which attention may yet be called. For the past four months this section has been scourged with a severe epidemic of dysentery and cholera infantum. I have used LISTERINE, wherever indicated, by the mouth, by rectal injection, and hypodermically, and the latter method has always yielded the best results. One case from many similar ones in my call-book will illustrate. Jessie ——, aged six months, suffering with cholera infantum three weeks, has taken many large doses of calomel, quinine, soothing syrup, etc.; much emaciated; dejections have an exceedingly bad smell; surface cold and clammy; pulse rapid and very weak. Stomach very irritable; can not retain the LISTERINE, no matter how much diluted; rectal injections do only temporary good. I apply external warmth, give hypodermically a half dram of a fifty-per-cent solution of LISTERINE in rose-water. In an hour word comes that baby is better. In six hours I repeat the injection. In twelve hours change for the better is so decided that I can give the remedy by the mouth, diluted with breast-milk. It was made as strong as the child could take it. With this and good nourishment and care baby rapidly convalesced. In dysentery, typho-malarial fever, chronic "chills," phthisis, etc., whenever the pulse is rapid and weak, where a vital tonic and antiseptic is indicated, I have always used it hypodermically with positive good results. Given a case where nature seems to be overcome by a poison which she can not eliminate with sufficient rapidity, give LISTERINE hypodermically, if needed, aid or stimulate the kidneys, bowels, or skin, and the LISTERINE will soon manifest its power in a very positive manner.—*F. A. Rew, M.D., Portia, Ark.; Medical Bulletin.*

PREDIGESTED FOODS.—There is a prejudice against prepared foods, quite general, but disappearing; a prejudice born of ignorance, like most others. The medical profession already regards them as useful, almost invaluable for infants and invalids. Necessity, the mother of invention, has led to the adoption of artificial digestive agents in cases of weakness and failure of the digestive powers. And this incapacity is more common than one would think, coming from mental worry, exhaustion, intemperance, the opium habit, disease, accident, negligence, etc., and nervous people are proverbially dyspeptic.

"Baby Foods" generally lack fat; fat is essential to healthy tissue, and therefore foods containing milk are the most complete, as from the milk a certain amount of fat is present, and then they are the most palatable. The principle which should underlie all baby foods is the conversion of insoluble starch into soluble matters, to prevent its irritant presence setting up diarrhea for its removal. When cereals are cooked by high steam heat, the starch transformation into soluble dextrine is more complete. And as the digestive organs become enfeebled by the advance of civilization, predigested starch must come more and more to the front. Babies have their choice of food just as much as their elders, and they show it by rejection of one food and delight in another, as they also show ability to digest and assimilate easily and thoroughly the food. But because one kind or form of prepared food is distasteful and disagreeable, it does not follow that all are so. Wells, Richardson & Co., of Burlington, Vt., manufacture "Lactated Food," which is a restorative and constructive in various conditions of the system. It is meeting with great success in the diet of invalids and children, and is received with approval by food experts at home and abroad.

Analysis shows its component parts more nearly similar to mother's milk than is cow's milk. Its nutritive elements are derived from the three great cereals, wheat, barley, and oats. From wheat is taken the pure gluten; from the barley, all the soluble albuminoid and extractive matter resulting from the most careful malting; and from the oat, the strengthening properties for which it is so well known. By reason of the fact that it is partially digested in process of preparation, it is assimilated by the feeblest stomach, and no undigested particles pass into the bowels to irritate, and thus cause troublesome and dangerous bowel troubles.

Its basis is milk sugar, which never causes acetic fermentation. The gluten flour is partially torrefied, and every particle is subjected to the action of the malto-diastase, thus transforming the starch into soluble carbo-hydrates. So that, although by reason of weakening of the natural forces and impairment of the digestive functions the conversion of starch is so slight that the stomach is hampered and strained, nutrition may be kept up by the use of prepared foods. And when, in the case of infants deprived of mother's nursing, cow's milk disagrees and a wet-nurse renders its chances of life precarious, Lactated Food is the sole reliance and support.

THE FEEDING OF INFANTS DEPRIVED OF THE BREAST MILK.—No physician should recommend a food, as he would not a medicine, without knowing its composition, and the composition of most of the recent dietetic preparations, ending with Carnrick's, has been announced. Carnrick's food contains a large percentage of the solid constituents of milk, the casein of which has been partially digested, so as to resemble the casein of human milk in its behavior under the digestive ferment. The other ingredient is stated to be wheat flour subjected to prolonged baking, so that its starch is to a considerable extent converted into dextrine. This food has the advantage of easy preparation in the nursery and easy digestion. Used alone it is sufficiently nutritious for the infant. It will probably supersede some of the older foods of the shops. Poor families, who can not afford to use it as the sole food, will, according to my observation, find it useful made into a thin gruel and employed in diluting the cow's milk with which these infants are fed.—*From an article by J. Lewis Smith, Clinical Professor of Diseases of Children, Bellevue Hospital Medical College.*

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. III. [NEW SERIES.] LOUISVILLE, KY., JUNE 11, 1887. NO. 12.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

MEDICINE AND MEDICINE-MEN.

Anniversary Address Delivered at the Banquet of the Louisville Medical Society, May 26, 1887.

BY JOHN GODFREY,
SURGEON M.-H. S.

I.

Mr. President and Gentlemen:
If you possessed omniscient ken,
And saw beneath the outward show
Of seeming calm, that hides the glow
Of hope and doubt that tingle through
My anxious heart, I know that you
Unasked would gladly shed on me
Your sympathies in full degree;
For grave misgivings and unrest,
With honest pride and joy combined,
Awake a tumult in my breast,
At thought that I have been assigned
For this one time, by fate or chance—
Or was it your fine complaisance?—
The august *rôle* of orator.
In answer to our written law,
Some one of us must occupy
This honored post, and edify,
As best he may, each mind and heart
Of those that serve the healing art.

II.

To-night this honor falls on me:
But do not dream that I aspire
My rough-hewn rhymes to foist on you
As flowers from fields of poesy;
My rhymes may fail, but this is true,
I disavow the vain desire
To meddle with poetic fire.
The Prince of Denmark, mad, forsooth,
Like one full wise, expressed this truth,
That "rightly to be great is not
To stir without great argument."
Well warned by this, my whole intent
Is not my humble speech to blot
With rhyme and reason badly blent.
  If by good chance I edify
  Your minds or hearts, 'twill justify
  The saying, that conviction lies
  In truth arrayed in homely guise.

III.

Truth, then, star-eyed, immaculate,
Shall have my first esteem;
Of lighter things let souls less sober prate,
But homely truth shall be my homely theme.
My muse must keep to lowest planes,
She knows no tropes nor rich rhapsodic strains;
Whatever else, she has no turn
For thoughts that breathe and words that burn.
So far as thinking is concerned,
I have through time and trial learned,
That all the thoughts of my small store
Are mostly breath—and little more.
And as for burning words—observe,
Mine flicker as a dying torch;
The heat they hold would hardly serve
Your softest sentiments to scorch.

IV.

But more than joy, I needs must feel,
What words of mine can not conceal,
Some fears that I the path must tread
Where men of eloquence have led.
But trust me, while I keep you here,
My heart contains another fear,
That naught can disenchant;

Within my very soul I know,
At time like this I have one foe—
The steaming restaurant.
But do not think that I,
By what I say would try
To prove you much addicted
To shunning ills you know,
For those that freely flow
From a tongue that's unrestricted.
'Tis graciousness that lets you sit
Attentive here, while woos the bowl,
Not sure of more than counterfeit
Of reason's feast and flow of soul.
If fancy could keep pace
With pride and keen desire,
My rhymes would then show trace
Of true poetic fire;
But thought that nobler strains
Than mine have held your ears,
My muse's flight restrains
And clogs her wings with fears.

V.

Full four completed years has run
The earth her course around the sun
Since this Society was born,
With mind and purpose to adorn
The walks where Science takes her way,
White-robed and radiant as the day.
Science! thou who wast gray with time
When kings watched stars in old Chaldee,
When men looked up with faith sublime,
To find what fate's forecast would be.
Ere Israel groaned in foreign lands,
And Moses throve at Pharaoh's court,
Thy temples graced the yellow sands
To which the Nile rich tribute brought.
We know thee cold as Zembla's snows
When dreams and fancies sue to thee,
Who no substantial gift bestows
Till stainless Truth herself makes plea;
Whose realm is limitless as space,
Whose glance can scan the farthest shore,
Whose patient eye can safely trace
The prints of feet that tread no more;
Whose tasks to such divergence run,
They hold the universe in hand;
The viewless atom, blazing sun,
Give heed alike to thy command.
Supreme in thy majestic mood,
Above the clash and war of guesses,
Thou sitt'st in steadfast attitude
Till reason's tongue addresses.
To thee, on thy imperial throne,
Where all arbitraments are just,
We bend the knee, and gladly own
To loyalty and perfect trust.
But though thy paths reach goals of peace,
Thy realms strong dragons hold;
The Argonauts that find thy fleece
Sail seas by tempests rolled.
Wherefore, on sober second thought,
It seems to me I really ought
Not to follow the stormy wake
Of scientific Argonaut,
But like a careful pilot take
My way along another sort,
Where harborage is more secure
From wind and wave, and wrecks are fewer.
Your longings may be great, no doubt,
To follow this alluring route,
But no great captain holds the helm,
The bark he steers is slim of sail,
He knows that waves may overwhelm,
He fears the wrath that lurks in gale.
And this, my friends, is my excuse
For steering wide of things abstruse.
Long argument were bootless here,
To make a well-known maxim clear,
That 'tis not wisest way, always,
To feed from scientific trays;
The wisest man may sometimes shrink
From guzzling scientific drink;
For wisdom's self hath this to say—
"There's time to work and time to play."
Therefore you see
'Twere wise that we,
Whose mission leads through scenes sedate,
From things too solemn strive to save
Ourselves, nor seek to gravitate
Toward our patients' goal—the grave.

VI.

Unvaryingly as planets sweep
Around the sun, compelled to keep
Their orbits fixed and true,
Do we gather together
Once a week, to see whether
The medical world has any thing new.
Where all with Hippocratic zeal

A lot of misty facts reveal—
Prognosticate prognosis,
  Expatiate on rabies,
  And every other fell disease
That needs a diagnosis.
One shows just how to lavagate
With faith sublime, and sublimate,
The microcosmic deeps where dwell
More microbe foes than tongue can tell.
One vaunts the virtues of cold steel,
For those that come on litters;
Another stimulates with zeal—
We all believe in bitters.
With one resolve, of fear devoid,
What lofty motives thrill us,
We neither care for lumbricoid
Nor cholera bacillus.
One tells just how with proper dose
Of morphine or paraldehyde,
The patient's sleepless eyes to close,
And takes a proper pride
In naming drugs that should be shunned,
And those from which to flee,
Lest clients that grow moribund
Grow more abundantly.

VII.

The time for us to meet is fixed
By constitutional power,
But something seems to come betwixt
Most members and the hour.
At any rate, they do forget
The date of our convention;
Well, doctors can not always get
Union by first intention.

VIII.

Perhaps you draw the inference,
If I have spoken truly,
That too much seeking oft prevents
The search for science duly.
At all events I take the view
That some goods gain by storing;
The science that my verse runs through,
Won't be the part that's boring.
For, look you, I am well alive
To physic's high intents;
Like you I'm gladdest when I strive
For ample recompense.
I can avow that in my breast
No flippant thought has place
Regarding physic's high behest,
That physic can't efface;
For doctors and the doctor's art
Have all the spare room in my heart.
I know how vast and intricate
The problems that his skill must meet,
How oftentimes to hesitate
Betokens hearse and winding-sheet;
How oftentimes to hush the cry
Evoked by wounds, he operates;
To this you all can certify—
You learned on death-certificates.
I know, as you must know as well,
What fruit his good works yield;
Who better than ourselves can tell,—
Except the Potter's Field.
But rest assured, I have no thought,
That would the healing art decry;
By you in part I have been taught
Our art to glorify;
Perpetually my heart outgoes
Toward fraternal medicos.
We all have seen the altars rise
Whereon they fall a sacrifice.
We know the calm unblenching front,
With which each medico is wont
The onset of his foe to meet.
In armament and cause complete,
How brave he goes to battle;
Lo! how his scalpel flashes bright,
When Death, half vanquished, takes to flight,
And blades and bones all rattle.

IX.

In all our ranks whoever saw
Chirurgeon decline to draw
Or staunch his client's blood;
Or saw-bones that would hold aloof,
Especially when furnished proof
That pay was fairly good?
No sooner does his eye discern
His foe, than all his instincts yearn
To subjugate and overturn.
Behold the skillful accoucheur,
When sounds of travail smite his ear;
Forth from green bags instinctively
Obstetric forceps leap on high,
And pausing o'er parturient bed,
Prepare to grasp the fetal head.

How daintily and debonair,
The general surgeon can prepare
His box of tools,
And silken spools,
His mackintosh,
And microbe wash
For germicidal warfare.
His long keen catling leaves its case,
And hemorrhagic hues prevail;
Collapse and shock but mend his pace,
He hath no thought to fail.
Like knight of old, he thrusts right through
Whatever threats or rankles;
His hands he will in blood imbrue,
From occiput to ankles.
And when at length,
With tested strength,
His case is done,
The battle won,
See how he waves his battle-flag,
And vaunts at death's disaster;
Proud emblem that, no soiled rag,
But yards of sticking plaster.

X.

And he who buffets human ills
With lots of liquid stuff and pills,
Hath any mission higher?
He loves to grapple grim disease
For duty's sake—and good fat fees—
He's worthy of his hire.
'Tis said the druggist and himself
Lock horns sometimes about the pelf,
In neighborly encounter:
Perhaps 't would partly heal the breach,
If neither would completely reach
His hand across the counter.

XI.

We must not pass, for obvious reasons,
The man that deals with nervous lesions.
How finely fits him lordly mien:
Upright and bold, sedate, serene,
As consul on triumphal car,
His glad ears catch the peal afar—
The voice of his artillery,
As booms the wide-mouthed Leyden jar,
And great galvanic battery.

XII.

But when the doctor finds that he
Must draw his aid from pharmacy,
Mark how the man and hour meet;
He calmly scans the long array
Of pharmacals that throng the way,
Disease and death to cheat.
See, Therapeusis, helpful maid,
Encourages the worthy fray,
And rattles forth a fusillade
Of drugs that save—or slay.
What legions rise at her prompt call,
All maladies to thwart or thrall!
First, the fluid extracts,
Like wolves in packs—
Bearing names so long they shock us—
Encompass the way,
On all things to prey,
From man to micrococcus.
First, bold Rhamnus Purshiana,
Next, young Lippia Mexicana,
Convallaria maialis,
And the blooming Corydalis,
Then Aspidosperma Quebracho,
Urechitis, Stylosanthes,
And a thousand such as these,
Led by famous Condurango.
But after these have fled and gone,
Like dews before advancing morn,
With front of Jove, far in the van,
Behold the red Peruvian.
With muscles strained and nimble feet,
He moves, the deadly foe of heat,
Nor cares, although its fires should be
Hot as the flames of Cotopaxi.
Beside him walks with air divine,
His chosen child, the fair Quinine.
When calorific clarions sound,
Armed *cap-a-pie*, she takes the ground,
The Thermic King to fight.
How brave is she, how sweet, how fair!
Though not so tall as fairies are,
She rules the Fahrenheit.
Soon, physic's Samson—thing to dread—
Bold Calomel uprears his head,
And, like wild beast in crowded cage,
He kindles with hepatic rage.
Quick as the supple leopard springs,
On threatening foes himself he flings.

With zeal and might in overplus,
Adown the dark œsophagus
He boldly leaps, prepared to swim—
No gastric villus troubles him.
This noble drug, whom men deride
By calling him the Mild Chloride,
At once, indifferent to fate,
Swift rushes through pyloric gate;
By hope inspired disease to catch,
He searches well each Peyer's patch;
Along jejunal paths he speeds,
Nor puny cœcal portal heeds,
Till through the sigmoid curve he pops
Victorious and free,
Because he must, for do n't you see,—
Colons are not full stops.

XIII.

But vain the task for me to tell
How much hath wrought great Calomel.
E'en had I speech like those of old,
That dwelt on slopes of Helicon,
Ere all this Samson's deeds I'd told,
The moon would her full circuit run.
'Tis true at times he salivates
Opposing foes, and "alterates"
The blood from brain to mesentery;
But what he does, like servant true,
He does until the task is through—
Go ask the cemetery.

XIV.

Yet why should I with thrice-told tale
The ears of medicos regale?
Blind is the man who can not see
That drugs have wondrous potency.
Aye, wondrous potency! for still
The vast majority can kill.
But while we live, and patients tug
At doctors' sleeve, and think each drug
Hath power to lengthen life,
So long will they by him be used,
And each by all get well abused,
And quackery be rife.
But do not dream that all drugs feel
Bold Calomel's fanatic zeal.
I might name some whose sole renown
Is circumscribed by martyr crown,
And some as harmless as the coo
Of gentle ring-doves when they woo.
On physic's invoice still remain
Some names, whose energies no pain
Nor ill of human kind can stir,
Not though Death's specter should appear.
No canker sore, no foul gangrene,
Can rouse them out of mood serene.
However, where 's the use to make
Distinction for distinction's sake?
Why mention names? Best let them rest
Unmarked by name. Yet stay. 'T were best,
One glorious name eclipsing all,
We may with bated breath let fall.
In one short hour, as comes mushroom,
It came, in fact, it had its boom.
It bloomed as blooms luxuriant rye,
Unergotized, untouched by fly;
It flamed as flames the rosy hue
Where sinapisms lately drew;
It flashed before each doctor's eye
Swift as faradic currents fly;
Gynecology loudly sung
Its praises with a liberal tongue;
It shone as gems in caverns shine,
Brief space 't was worth its weight in gold,
And medicos got badly sold
By Chian Turpentine.
But if this anti-cancer drug
Turned out a certain sort of bug,
Pray do not every drug despise.
So long as wits of men devise,
The man of drugs will always strive
To fill your potent recipes
With any kind of drug you please,
That you and he may thrive.
Thus he and we are bound by common ties,
Our commonwealth to save;
At least we can heave common sighs
Beside the patient's grave.

XV.

So much at present I present
In mention of medicament;
But lest you think I break the rule,
That places workman 'bove his tool,
I make with drugs a short-lived truce,
And him who wields them introduce.
'Tis not improbable that I
This pleasant task have done already;
No matter, this you wo n't deny,—
Whenever doctor's bills run high,

Some folks incline to pass him by;
Whereby he learns that now and then
Reintroduction whets the ken
Of those that owe, and keeps them steady.
Albeit the weighty fact remains,
That what is said for bread and butter,
We may one time too many utter;
For doctors are like other folks
In common things, and must take pains
To shun the practice that provokes,
Nor count denomination,
Unless of course, it should appear
That doing it would interfere,
And stop a consultation.

XVI.

Now then we've crossed the Rubicon,
And on the thither shore stand fast,
Like Roman Cæsar let's right on,
We've naught to fear, our die is cast.
We dare, nor fear, the world's alarms,
We trust the fight to good right arms;
No doctor lives beneath the sky,
Too ignorant to cast a die.
Here might I, since the chance is good,
In invocative strains break forth,
But if a thousand times I could,
You would not deem the tribute worth
The time it takes to do it.
Those mighty ones, who, all consent,
Should wear divine Apollo's wreath,
Have gone where all their victims went,
To join their old confederate—Death—
They need the pen of poet.
Then let us ring the curtain down
On those gone on before,
Whoever sleeps beneath the ground
'T were idle to deplore.
Enough to hope that each one shuns
Acquaintance with Old Scratch;
Live doctors are the only ones
That laymen need to watch.

XVII.

But ere I terminate my task,
One vital question let me ask:
Say, is there aught this wide world through,
For men of hero stamp to do,
That can the doctor's heart appall?
Right willingly he intubates,
Exsanguinates, debilitates,
And constipates both great and small;
He amputates, asphyxiates,
Aye, even differentiates
'Twixt lung disease and pangs rheumatic,
By double dose of oxygen
Pumped on you in a narrow pen,
Called cabinet Pneumatic.
But while such deeds proclaim him grand,
How busily he meditates,
And ponders o'er what scale of rates
The doctored folks will stand.
Ah! little recks the world outside,
How earnestly hath doctors tried
To conquer stern disease;
And more than this, what rapture fills
His eager breast, should proffered bills
Turn out collected fees.
Two things of him may well be writ,
As parts of his ambition;
He's glad when fevers intermit
And fees have no remission;
For what can bring such plenitude
And sense of sweet sufficiency
As knowing current work will brood
Sufficient pay in currency.

XVIII.

No doubt in every listener's breast
This obvious truth is well confessed,
That wondrous things and manifold
Come out when doctor's deeds are told.
Metallic transmutation, which
Has proved a vain delusive hitch
To chemists all since days of old,
To him is problem light to do;
For metals that he passes through
Man's bowels turn to gold;
That is, provided, and always,
The man with bowels promptly pays
His bill like honest man consoled.
Each ill, from simplest pang to pox,
Reveals unlooked for paradox;
Since every doctor learns in time
Achievements that appear sublime,
And most vainglorious thoughts awaken,
Result from physic never taken.
The work that seems to him most sure
Is oft by doubt surrounded,

Prescriptions have been known to cure
That never were compounded.
But while he lends his utmost skill
To baffle pain, perchance to kill,
Not man, but maladies, 't would seem
That he like other men must bear
Of ills a just proportioned share,
And some of which few dream.
For you and I are well aware
His daily visits lead him where
He must behold the scath and blight
Of penury and dark despair,
And that to him far sadder sight,
The grimy closet skeleton,
That ever keeps its hold upon
Its victims, and metes punishment
Alike to bad and innocent.
He sees, but sees with vision dim—
Such secrets are not meant for him—
  His eyes must be myopic,
And charity for human woes
Must strain his heart until it grows
  In pity hypertrophic.

XIX.

The upshot is, I make no doubt,
From what I 've said you have found out
That every creed holds him endeared,
Whether Catholic or Quaker,
And doctor's name will be revered,
While lives—an undertaker.
But while he fights his goodly fight,
And cleaves his way toward the right,
Confronted oft by that fierce glare
That gleams in eye of dark despair,
  His life is no sweet sinecure.
Compelled, perhaps, each day to view
The cot where phthisis paints its hue;
Required by fate to ply his art
Where death and sorrow have their part—
These are no witcheries be sure.
But if the doctor's life is spent
Where sickness reigns, with mind intent
To do his work with manly zest,
An follow honor's high behest,
Sunshine will gild his future:
He 'll die in peace and poverty,
And be forgot as certainly
As catgut makes good suture.

XX.

But such results the medicine-man
With philosophic eye can scan.
He knows that his true recompense
Lies in the value of his cents;
And sure as cough consumption follows,
It takes the cents to make the dollars.
But why repine because, forsooth,
The search is slow for hidden truth?
Who gathers most from wisdom's hoard
Plods rougher way than royal road.
Full many times when doubts assail,
And intervening clouds prevail,
Let him but steer right bravely on,
His best reward is work well done;
For all the while his race is run
His talents serve good uses,—
Grim death gets those he can not save,
And, though he populates the grave,
The census he reduces.

XIX.

What rapture must his bosom fill,
At times how must it throb and thrill,
As with proud eye he proudly sees
The shackled limbs of fell disease!
How soft the glance with which he views
The tear that grateful eye bedews—
Acknowledgment of grateful heart,
That doctor sometimes does his part!
But there are times fraught full of deeds,
When he sublimest courage needs.
For instance, when the crimson cloud
Of war enfolds us like a shroud;
When fierce and far the bugle's bray
Portends the shock of bloody fray;
When sorts the timid from the true,
Note what the medicine-man will do.
With nerves, like knives, composed of steel,
He waits where deep-mouthed cannon peal,—
Not on the line, but somewhere near,
Unless the thickening bullets prove
His quarters he had better move
A trifle farther to the rear.
But soberly, for you and I
Know well enough that jocund speech,
However apt, can never reach
The core of life's great tragedy,
Let 's picture then as best we can

The true work of the medicine man.
Behold him by the law's command,
Lodged safely on the witness' stand,
When lawyers coax, and coax until
He testifies to things that smack
Of—any how they rather lack
In qualities that truth can fill.
And then he goes, assured that he
Has doubly earned his expert fee.
But scenes like this make minor part
Of that stern play, the healing art.
When the dread form of pestilence,
With step unchallenged walks the way,
Moving alert with every sense
  Insatiate to slay;
When o'er hot seas, 'neath copper skies,
The Fever King in saffron guise,
On white-winged ships invades our shores,
And with remorseless march outpours
  His wrath on every hand;
When terror-smitten mortals hush
Their daily work and madly rush
To some more favored land;
When panic spreads and love departs,
By fear cast out of strong men's hearts,
Then doctors stand with steadfast feet
The king in saffron robes to meet.
And when full soon funereal knells
Begin to break from throats of bells;
And as in turn their solemn toll
Records and swells the long bead-roll
Of victims smit by Death's dark wing;
When sorrow broods, and every eye
Sees dismal hearse roll mutely by,
For Pestilence is king:
In times like these the doctor feels
His heart expand, and swifty steals
Through every nerve, to tension strung,
The will to do the brave among.
And doth he not his duty well?
How many here could truly tell
Of doctors' deeds would put to shame
The laureled warrior's brightest fame!
Not well? Why who of all this world,
When Death's dark banner floats unfurled,
  And his keen shafts are flying,
  So resolutely fills the breach,
  And if he fall, all mortals teach
  How brave is doctor's dying?
  'Twere vain to name the long array;—
  Each tomb contains a hero's clay,
  Where Death keeps watch half-sated:
  We mourn them all, soft be their rest;
"The bravest are the tenderest,"
  Brave hearts, self-immolated.

XXII.

But you, young men, who've just begun
The long hard fight with knives and pills,
Whose innate pride would scorn to shun
The pestilential breath that kills,
Whose eyes are fixed on fame's far heights,
Whose hands must stretch to lend relief,
Whose gaze must meet the darkest sights,
Whose lips must move to conjure grief;
If you would win man's grateful thanks,
And have your benefactions sung,
You'd better quit the living ranks,
And—die while you are young.

XXIII.

  But tell me, friends,
  What fate attends
Those gallant ones that fail to die
By that same pestilence that I
Made mention of in simple phrase
A little while ago?
Assuredly, you all do know
'Twere task not difficult to show,
The world instinctively obeys
One common law, and that conveys
With willing hands the greenest bays
About the well-deserving head
Of him who sleeps among the dead.
But all the world can't die at once,
However fiercely death confronts;
So, when the pestilence had fled,
A few brave ones were left behind;
They followed where the bravest led,
But failed the fatal shaft to find.
  Give thanks, my friends,
  That heaven sends
The doctor still to cope with pains:
If otherwise, 'tis plain to see,
The bulk of this Society
Would obviously remain remains.
Then Death would mount his swift pale horse,
With woe astride the crupper,—
Could any thing befall us worse?
We'd miss the annual supper!

But still as runs the world away,
Like dog the doctor has his day;
And further search perhaps would strike
Your minds that they are much alike;
In other words, I would remark
That both put ample faith in bark.

XXIV.

Who frequents more the mystic shrine
Of sweet Hygeia, maid divine,
To cleanse the world's pollutions,
Than medico, though knowing well,
His pile of ducats he might swell
By breaking constitutions?
Each one that hears can well attest
How, frequently, by zeal possessed,
His fellow men he tries to shield
From ills that noxious vapors yield,
Through skill and sanitation;
Yea, tries in spite of obloquy,
In spite of sneers and calumny,
And cruel objurgation,
To make their lives from sickness free,
Although the very blind can see
That ills which fall on layman's head
Assure the doctor daily bread.
Will time yet come when men at large
Can comprehend, I wonder,
The true condition of the charge
That doctors struggle under?
Can no one see in laymen's ranks
How virtue is assaulted,
When thievish quacks and mountebanks
Are helped to seats exalted?
What is it guides the doctor's feet,
But holy sense of duty,
When he beholds the brazen cheat
Grow fat on fraud-won booty?
Well, quacks will strut with lofty ken,
Till nature makes new rules,
For out of every hundred men,
Some ninety-odd are fools.

XXV.

But I'm sure each one awaits
To hear the separate fates
Of those that failed to die in the pestilential strife;
But I'd rather be excused,
Since my tongue is quite unused
To make such public mention of a medico's life.
Yet, since I have the floor,
Which may happen nevermore,
An occasion like the present I had better not miss,
To ask you, one and all,
If to mind you can't recall
A story that in substance runs something like this:
When the pestilence is o'er,
That was mentioned heretofore,
And the wounds, having healed that were made by its inflictions,
Give the living doctor rest,
And a superadded zest,
For the fame and the fees of prescriptions;
When returns the balmy breath,
And the rosy hue of health,
And each client feels as happy as a bee in search of honey;
Then the doctor twirls his thumbs,
And from comfort takes the crumbs,
And like Patience on a monument sits and whistles for his money.

THE EARLY DIAGNOSIS OF VERTEBRAL CARIES.*

BY GEORGE W. RYAN, M. D.

So excellent an observer as Mr. Alexander Shaw, in the last edition of Holmes' Surgery, speaks of the "knuckle" as the first symptom which usually attracts the attention of the physician in a patient with caries of the spine. However, the accomplished American reviser, Dr. E. H. Bradford, of Boston, gives a succinct account of some of the earlier symptoms of this disease.

The importance of a diagnosis before the kyphosis is apparent can not be overestimated, as it adds so much to the comfort of the patient if prompt treatment be applied, and to the skill and intellectual pleasure of the practitioner. The large majority of cases of spinal caries that come to the orthopedist for mechanical treatment declare themselves unmistakably in the knuckle, where no skill is required to determine its character; few are seen in consultation or come directly under observation upon that period. To the family physician the incipient caries is taken as a rule, provided it is taken to any one; and if these remarks simply draw attention to the subject, they will have served the purpose of the writer. That a considerable number of these cases pass on to deformity without any marked symptoms is true, but it is not so with most of them. That it can be diagnosticated in its incipient stage, and that it ought to be where the opportunity is given, is now generally understood. There are cases known when, after repeated examinations, it can not be clearly made out until the "knuckle" is unmistakable. If we believe that we have to encounter a constitutional disease, and essentially a tuberculous one, beginning generally as a central ostitis of the body of the vertebra, the rationale of its symptoms will be accordingly clear to us. The region in which the disease begins will have the greatest bearing in the symptoms, which are almost altogether nervous. When a case presents itself where there is any reason to suspect disease, the first step is to gain an accurate family history, directed particularly to tubercular disease. The next to the personal history: whether the child has passed through the infantile diseases, and as to its general condition, following convalescence, for in many of these patients the disease is found to start from the tardy convalescence of a scarlatina, a diphtheria, or a whooping-cough; indeed, there seems to be a remote connection between the latter and many cases of spinal caries.

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*Read before the Academy of Medicine of Cincinnati.

You will have heard, before you ask it, the story of a real or suspected trauma, how a nurse two years before let the baby fall, or that it slipped off the chair some months before. The evidence of a trauma, and of course I mean conclusive evidence, is very difficult to get in most cases, and the bare statement must be taken with great allowance. Further questioning will give you the history of restless nights, moaning and disturbed sleep, a tired feeling, which shows itself in the indisposition of the child to play, or a continual desire for support from any convenient object. It is very likely that it has complained much of epigastric pain, ranging from an occasional grunt to almost a tetanic spasm; that, if it happens to fall, it screams with pain, generally referred to the epigastric region; that it is noticed that the child walks more carefully, or in very young children that it does not walk at all; that its gait is peculiar, holding the back very rigidly, or the shoulders thrown back to an abnormal degree, or that at times one shoulder seems higher than another; that it does not stoop, or if it does that great care is taken and support is sought by placing the hand on the thigh. Occasionally only is the pain in the back complained of, and this generally when a jar is sustained. On examination the gait is found characteristic, I had almost said pathognomonic. There is a carefulness, a rigidity about the carriage which is never found unless there is disease of or about the spine. Often the physiognomy will give you a pinched, anxious expression. The little one is asked to stoop to pick up a coin or something which will give the proper encouragement. It attempts it with the most marked care, and succeeds by simply lowering the body, with the spine held rigidly, or the pain comes on from the attempt, and it is given up. On physical examination, with all the clothing removed, there may not seem to be a trace of angular curvature; pressure is generally resorted to, to see if there is any spinal tenderness, or a "soft spot," a practice which is utterly valueless, and which will be further on referred to. The examination as to mobility can now be readily and painlessly made by having the child lie on its face and, grasping the heels, slowly extend the limbs with the opposite hand on the supposed site of disease. It can then be determined whether the column yields throughout, or whether there is any point where rigidity is present, and it will be if there is bone disease. The iliac fossæ may be explored for abscess, and likewise the ilio-costal spaces. If with all this history a spinal rigidity is found—and I am speaking of a dorsal or lumbar spine—the diagnosis is unmistakable. In the cervical region the symptoms take an entirely different character. Torticollis is often found, though not so much in my experience as the textbooks state. There is occasionally an occipital or post-annular neuralgia, or hyperesthesia. When the hair is brushed the patient complains of it. There is considerable interference with the arc of motion, and at times a pharyngeal examination gives us valuable evidence. There is not likely to be much deformity, and many cases of disease in this region are exceptionally rapid in their progress toward repair. Spinal caries may be mistaken for a number of diseases, and in turn these may be mistaken for the caries. Perinephritis, perityphlitis, and hip-joint disease are most likely to give rise to difficulty on this point. The acuteness of the symptoms in the first two will, as a rule, enable us to rule out spinal disease, as also will the flexible spine. Hip-joint disease will be attended with some muscular rigidity, and a thorough examination will easily determine the exact source of the trouble. A cold abscess in the iliac fossa or in Scarpa's space is sometimes found when there is no apparent lesion of the spine, but a careful examination of both spine and hip joint should be made.

I wish to say a few words regarding certain proceedings that are followed by rule in the examination of these cases. The first is what is known as the pressure test, and employed by means of pressure of the hand of the surgeon on the head and shoulders of the patient, and concussion in the same fashion. This has some pathological and clinical value, but to be effective it must be used to a degree that is positively cruel. Dr Gibney relates a case in which this was employed by a distinguished surgeon, who was testing a case to find whether cure was complete, with disastrous effect. It is a practice which should be employed with the greatest care, or it would be still better if it were wholly discarded. Little is gained by it which is not gained by more gentle pressures.

Concerning the tenderness on the spine, which is often supposed to be a reliable symptom of caries, a few words seem timely. Tenderness on pressure over a diseased spine in its incipient stage is rarely or ever found, and this statement is made deliberately and with all due emphasis. In a large hospital experience and in private practice I have seen it in but two cases, and in one of these it was probably neuralgic. It is of no value whatever if found at the early stage of caries, because it is indicative of periosteal rather than a central lesion. From the pathology of the disease it will be readily seen that it is well nigh impossible to elicit true bone tenderness if the disease is situated in anterior portions of the body of the vertebra. In the very rare cases that begin in the lateral masses or transverse and spinous processes it would doubtless be found. Tenderness could only be elicited in the uncomplicated cases by a pressure which would be a concussion. There is at times some difficulty in differentiating between kyphosis of rickets and caries. The general appearance of the child, the other rickety curves about the limbs and the enlarged epiphyses, together with the absence of pain and suffering, with the flexibility of the spine, will enable one, after a thorough examination, to rule out caries. There is also a distinct difference between the spinal curves, that of rickets being rounded and easily corrected in its early stage by simple extension, that of the other being sharp, angular, and attended with the characteristic rigidity. A peculiarity of the incipient stage of a few cases is that a lateral deviation is often found some time before the angular. The same tests will readily determine whether the true lesions exist, and it is well to examine every case of recent lateral curvature very thoroughly.

In lumbar disease a marked lordosis is often found in the beginning, but the characteristic gait and presence of other symptoms will enable one to make a diagnosis without much difficulty. The following case may serve to bring out some points just spoken of. About six weeks ago I was asked by my friend, Dr. Forchheimer, to see a case in consultation with him at his office on the following day. A little girl of four years was brought into the room by her mother. The peculiarity of the gait was marked, but she seemed to be active and cheerful. The family history was tuberculous. The child, a plump blonde, had always had excellent health previous to the past six months. About that time she began to complain occasionally of pain in the epigastrium. This continued until the services of a physician were sought by the mother. The doctor, a thoroughly accomplished man, examined the spine, but found it healthy so far as he could discover, and treated her for stomach trouble. She got no better, the pain increased, and the intervals of the exacerbations were shortened. She was stiff and awkward on rising in the morning. The services of another physician were engaged, and he was inclined to look upon the case as one of pseudo-hypertrophic muscular paralysis, and there were certain conditions which seemed to justify the opinion. Lordosis was well marked, the child seemed unsteady on its feet, and could not arise from the sitting posture, when on the floor, without assistance, but the pains continued to grow worse, the slightest jar giving rise to great suffering. There was no deformity, and the gentleman could not convince himself that there was spinal disease. The case finally came into the hands of the gentleman with whom I saw it, and he readily diagnosticated vertebral caries. The physical condition was fair. With the previous history and the peculiarity of gait, the diagnosis seemed very clear, but she was put through a physical examination. There was no trace of angular curvature. She could not stoop without support, and never without pain. There was not a trace of tenderness on pressure. The concussion test was not employed. The spine was quite flexible, but not perfectly so, and the diagnosis of caries was agreed to. She was referred to my care, and before the apparatus could be gotten ready a slight curvature was noticeable. The mechauical treatment has since relieved her distressing pains.

This case is related, not from any motive of censure, but simply as the clinical history of a typical case of spinal caries. I had expected to give the history of several new cases, but this one will be sufficient. In conclusion let me urge the necessity of a thorough physical examination, with the patient entirely devoid of clothing, the necessity of a clear history of the case, and keeping in mind the pathology of this disease, a diagnosis will readily be made in the majority of cases before the kyphosis appears.

CINCINNATI.

DR. E. DARWIN HUDSON, JR., died at his home, in New York City, on the 10th instant. He was born in 1843.

Societies.

LOUISVILLE CLINICAL SOCIETY.

May 10, 1887, President J. A. Ouchterlony, A. M., M. D., in the chair.

Dr. J. M. Mathews, commenting upon the case reported by Dr. Gunterman, at the last meeting,* of purpura hemorrhagica induced by a poisonous dose of coal oil, said that a lady had told him that she had often taken coal oil in tablespoonful doses, and that she had given it in teaspoonful doses to an infant, without ill effects in either case.

Dr. W. Cheatham spoke of the importance of neuro-retinitis as a diagnostic and prognostic sign in chronic interstitial nephritis. As a prognostic it would seem to be of great import. It is said that the subjects of chronic albuminuria never live longer than from one half to one year after the development of this complication. They generally die in six months after the discovery of the retinal lesion. Dr. C. cited a case: A lady from New Albany, about one year ago, came to him with this condition of the eyes. Her urine was examined by two expert urologists, who failed to find any evidence of kidney disease. In less than six months from the day on which the neuro-retinitis was discovered she died, presenting all the rational signs of chronic Bright's disease.

Dr. Ouchterlony thought the case very remarkable. He had never seen a case of Bright's disease which, up to within six months of death, gave no evidence of its presence. If the disease should escape notice in the urine we would expect to find hypertrophy of the heart.

Dr. Leber spoke of a patient with Bright's disease who died suddenly of probable heart lesion. At times he could find casts, at others not. Sometimes albumen was absent; at others present in small or large quantities. A drop of aniline dye added to the urine will stain the casts and thus facilitate the finding of them.

Dr. Brandeis reported the following case: A small woman, forty-two years of age, married, but who had had no child for twelve years, came to him suffering with menorrhagia, which scarcely left her free of hemorrhage for one week in the month. As she would not submit to examination, he prescribed ergot and hydrangea. In a few days she returned, saying that the bleeding was less, but that she felt something protruding from the vulva. Examination disclosed a round tumor pedunculated and attached to the womb. It was removed with ease by the *ecraseur*. Dr. Brandeis asked what is to be the fate of the pedicle.

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*See AMERICAN PRACTITIONER AND NEWS, issue of May 14, 1887.

Dr. Leber said that in his cases the pedicle had shriveled.

Dr. Anderson: They are not recrudescent; they shrivel and become absorbed.

Dr. Roberts saw, on the 2d inst, a boy twelve years old who, while running with a Punch-and-judy tin whistle in his mouth, swallowed it. He immediately drank water, and felt no bad effects for three days, when he began to cough and complained of pain in his left side with shortness of breath. Examination showed that air did not enter the left lung. Temperature 103°. He was put to bed; would cough on the least exertion. The voice was not affected. Still no air entered the lung. Four or five days after the accident his temperature was 99.4°; pulse, 104. No evidence of respiratory murmur; no expansion of left side of chest. Dr. Roberts advised, with the concurrence of the attending physicians, a tracheotomy. The trachea was opened and the lips of the wound (an inch long) were separated as much as possible, but all efforts such as manipulation of the boy and the use of instruments failed to bring out the foreign body. However, on the third day after the operation the boy coughed it out along with two ounces of pus. The whistle was one inch long and a half inch wide.

Case 2. Dermoid cyst of ovary. Girl, twenty years old. She was much emaciated, being little else but tumor, skin, and bones. An operation was undertaken for her relief. In opening up the peritoneal cavity more than one and a half gallons of dark-colored fluid escaped and the tumor came to view. A trochar passed into it, and a peculiar curdy material came out with much hair. There were very few adhesions. Four ligatures only were used. They were tried on both sides. He hoped to remove the tumor without hemorrhage, but considerable blood escaped; and on looking into the pelvis he found it studded with what looked like colloid growths. A few of them were also seen in the abdomen. The operation was completed in spite of the fact that there was no pulse at the wrist, for the aorta could be felt beating. The colloid cysts were not interfered with. The patient is doing well to-day. Temperature, 101°.

Case 3. Dr. Roberts removed a keloid involving the breast in a patient of advanced years. The incision was nine inches long. The breast was removed under antiseptic precautions. The wound was closed with silver pins and antiseptic yarn, so passed around them as to form a figure of 8 between the pins. The ligatures were of catgut. The dressing was of iodoform and carbolized wool. The dressings were not changed until the eighth day, when not a drop of pus was found.

Dr. Satterwhite saw, with Dr. Griffiths, a tumor the size of a lemon in the region of Scarpa's triangle, of six or eight months' standing. Under chloroform it was traced up to Poupart's ligament. There was no sign of aneurism. He used the hypodermic syringe and withdrew pure blood. This procedure was repeated, but nothing but blood was found. He cut down and into it, and found at least a pint and a half of pus. The case was evidently one of psoas abscess.

Dr. Cheatham had performed tracheotomy in a case like that of Dr. Roberts, but did not get at the foreign body. Six months after the operation the patient coughed up the bone (the foreign body), and died a few hours afterward.

Dr. Mathews saw, yesterday, a man who consulted him because of a small external pile situated at the verge of the anus. Examination of the anus showed condyloma. On looking into the mouth he saw mucous patches. On the skin was to be seen the syphilitic secondary eruption. Three months before, in Nashville, he was examined for the papule by a physician, who called it herpes. It was clearly a case of syphilis, unrecognized by his physician and unsuspected by the patient.

Dr. Ouchterlony reported the development of keloid following the piercing of the ears of a negro girl. There was a tumor somewhat larger than a large pea on the posterior side of the lobe of each ear.

Dr. Satterwhite said that some time since in removing a tumor from the neck of a white child he applied a too strong lotion of corrosive sublimate; a keloid followed, which he now learns is disappearing.

Dr. Roberts had seen keloid develop on the skin after an accidental burn by aqua ammoniæ.

I. N. BLOOM, A. B., M. D.,
Secretary.

LOUISVILLE MEDICAL SOCIETY.

Among other signs of the increasing interest in society work in Louisville may be mentioned the large share of attention paid to the anniversary proceedings of the Louisville Medical Society.

On Thursday, May 19th, the annual election for officers was held at the school-board building, when Dr. John Godfrey was elected President, Dr. R. W. Taylor, First Vice-President; Dr. S. G. Dabney, Second Vice-President; Dr. Thomas T. Bullock, Secretary, and Drs. J. M. Clemmens, W. O. Roberts, and D. T. Smith members of the Judicial Council. Dr. Wm. Bailey, the retiring President, gave an interesting address, full of good sense and sound advice. The Society then adjourned to reassemble at the anniversary banquet on the 26th of May.

Accordingly, at a spread of sixty plates, there gathered as creditable an array of Louisville physicians as ever graced a similar occasion. Dr. John Godfrey, who had been chosen orator, delivered the annual address, which we publish elsewhere in this issue. It need not be said that the address was received with unstinted applause. After the delivery, on motion of Dr. E. R. Palmer, it was ordered to be printed, and a copy supplied to each member of the Society.

The covers were then removed, and a magnificent *menu* discussed until the "wee small hours ayant the twal." The toasts were felicitous, and called forth fitting responses from Drs. Scott, Von Donhoff, Ray, Bullock, Irwin, Bailey, Reynolds, Palmer, Smith, Yandell, Vance, Godfrey, and others.

Dr. J. M. Mathews, the master of ceremonies, presided with grace and dignity. The occasion was one of uninterrupted pleaure, and gives impetus to the work of the new year, upon which the Society enters with a growing membership and the promise of brilliant achievement.

Reviews and Bibliography.

Paralysis, Cerebral, Bulbar, and Spinal. A Manual of Diagnosis for Students and Practitioners. By H. CHARLTON BASTIAN, M. A., M. D., Professor of Clinical Medicine and Pathological Anatomy in University College, London, etc. With numerous illustrations. 12mo, pp. 671; cloth. New York: D. Appleton & Co. 1887.

No reader of Dr. Bastian's admirable treatise, The Brain as an Organ of the Mind, will doubt his ability to deal with the most intricate question of neurological sciences.

In the present volume the studies in neurophysiology, so clearly set forth in the former treatise, are made available to the practitioner in tracing various paralyses to their central source. The work is devoted almost exclusively to points bearing upon the diagnosis of the various forms of paralysis from brain disease, from disease of the bulb, and from disease of the spinal cord.

In unfolding this great theme, the author not only sets forth with care the symptomatology of the affections in hand, but passes in review all essential factors in the anatomy, physiology, and pathology of the nervous system. The reader of this work will find many points hitherto obscure in diagnosis made clear, and in practice will be able to rest his prognosis and treatment in not a few of the forms of paralysis upon a firmer scientific basis.

An Introduction to Practical Bacteriology. A guide for Students and General Practitioners. By THOMAS E. SATTERTHWAITE, M. D., Professor of Pathology and General Medicine in the New York Post-graduate Medical School. The Physician's Leisure Library Series. 12mo, pp. 85; paper. Detroit, Mich: Geo. S. Davis. 1887.

The author of this treatise makes no claim to originality, having no theories nor special studies of his own to lay before the profession. His aim has been simply to put in compact form the essentials of the known in this department of medicine.

The subject-matter is clearly set forth, admirably arranged, and well illustrated. As a text-book and working manual for the student it will do good service.

Hand-book of Materia Medica, Pharmacy, and Therapeutics, including the Physiological Action of Drugs, the Special Therapeutics of Disease, Official and Extemporaneous Pharmacy, etc. By Samuel O. L. Potter, M. A., M. D., Professor of the Theory and Practice of Medicine in the Cooper Medical College of San Francisco. 12mo, pp. 828; cloth. Philadelphia: P. Blakiston, Son & Co. 1887.

In view of the many works, good, bad, and indifferent, on this subject which were already at the command of the profession, it may be doubted if a writer, who has no original theories or discoveries to bring forward, should be excused for launching another craft upon the sea of therapeutic uncertainty. Nevertheless, we believe that the builder of this one has not labored in vain, and that it will demonstrate its sea-worthiness by a prosperous voyage.

The book is a compilation merely; but when we consider the immense mass of material now afloat, good and bad, in wild disorder, the need for a judicious compiler is felt, and his advent welcomed.

Dr. Potter's work contains what is worthy to be preserved of the materia medica and therapeutics of times old and new, and sets it to the physician's hand in admirable shape.

Elementary Microscopical Technology. A Manual for Students of Microscopy, in three parts. Part I—The technical history of a slide from the crude materials to the finished mount. By Frank L. James, Ph. D., M. D., President St. Louis Society of Microscopists, etc. 12mo, pp. 107; boards. St. Louis, Mo: St. Louis Medical and Surgical Journal Company. 1887.

A Treatise on Diphtheria, historically and practically considered, including croup, tracheotomy, and intubation. By A. Sanné, Docteur en Médecine, Ancien des Hôpitaux de Paris. Translated by Henry Z. Gill, A. M., M. D., LL. D. Freely illustrated and annotated. 8vo, pp. 656; cloth. St. Louis, Mo: J. H. Chambers & Co. 1887.

Public Health. The Lomb Prize Essays. Award made at the thirteenth annual meeting of the American Public Health Association. Washington, D. C., December 10, 1885. With appendix. Irving A. Watson, M. D., Secretary. Second edition. 8vo, pp. 198; cloth. Concord, N. H. 1886.

The Vest-pocket Anatomist. By C. Henri Leonard, A. M., M. D., Professor of the Medical and Surgical Diseases of Women in the Detroit College of Medicine. Thirteenth edition; 154 pages. Post paid, 75 cents. This is an excellent little reminder, and a very desirable companion for emergencies.

Transactions of the Association of American Physicians. First session, Washington, D. C., June 17 and 18, 1886. Francis Delafield, M. D., President; James Tyson, M. D., Secretary; James T. Whittaker, M. D., Recorder. 8vo, pp. 261. Philadelphia: W. J. Dornan, printer. 1886.

Anatomy, Descriptive and Topographical, in 625 illustrations. By Carl Heitzmann, M. D. English edition, by Louis Heitzman, M. D. Two parts in one volume. 8vo, pp. 544; cloth. New York: J. H. Vail & Co. 1887.

Healthy Homes and Foods for the Working Classes. By Victor C. Vaughan, M. D., Ph. D., Professor, University of Michigan. Lomb Prize Essay, American Public Health Association. 8vo, pp. 62; paper. 1886.

Some Observations upon the Modern Treatment of Urethritis. By George E. Brewer, M. D., Assistant Surgeon to the Out-door Department of Roosevelt Hospital. Reprint.

Abstract from the Transactions of the Medical Society of the State of New York, for the year 1887, Merrit H. Cash Prize Essay. By A. N. Bell, A. M., M. D., Brooklyn, N. Y.

The Claim of Moral Insanity in its Medico-legal Aspects. By James Hendrie Lloyd, M. D., Instructor in Therapeutics in the University of Pennsylvania. Reprint.

The Uses of Massage, translated from the German of G. Rabmayr, with notes. By Benjamin Lee, A. M., M. D., Ph. D. Philadelphia: 1887.

Pelvic Inflammations, or Cellulitis v. Peritonitis. By Thomas Addis Emmet, M. D. Reprint.

Practical Examples in Prescription Writing. By Charles H. May, M. D. Pages, 16.

Granular Conjunctivitis With and Without Pannus. By W. Cheatham, M. D. Reprint.

Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The method of treating sewage by the porous carbon process, inaugurated some short time ago at Southampton, has, up to the present, been a decided success. Reservoirs have been constructed, where the sewage of some thirteen thousand of the population is collected. Here it is mixed with a small proportion of porous carbon, which precipitates the solid matter and gives an effluent water so clear, colorless, and inodorous that some people have been courageous enough to taste it. The merit of the mineral powder is, that it is rich in available iron, alumina, and carbon, and it is singularly effective as a precipitant. Besides its chemical attributes, it possesses also the physical one of extreme porosity, which makes the oxygenation of organic matters held in suspension very rapid. The importance of this point is, that, unlike sewage treated with lime, there is no secondary decomposition set up to pollute the rivers into which the effluent water is poured. From the reservoirs the residuum of the sewage is conveyed, by the use of Thone's pneumatic ejector, through pipes to the sanitary works, about a mile distant from the tanks, where it is mixed with town sweepings and refuse, producing a manure for which there is a ready sale to the farmers at 2*s.* and 6*d.* a ton. Any of the sludge that can not be got rid of is destroyed in "destructors," which have been erected on the works.

Mr. Godlee, at a meeting of the Clinical Society, gave some interesting cures of cysts occurring after abdominal injury. One was the case of a man, aged twenty-three, who was run over by a heavy wagon. A cystic tumor developed itself on the left side, partly under the ribs and partly projecting below them, causing considerable discomfort and vomiting. After periods of relapse and improvement, the tumor was aspirated through the seventh intercostal space, and seven ounces of turbid fluid, containing a trace of urea with a considerable amount of albumen, were drawn off. The patient after this gradually recovered. The doctor pointed out that, while the diagnosis of the case was very obscure, it was probably a renal cyst, resulting from a laceration of the kidney. Another case was that of a boy, aged seven, who was knocked down by a van, but was not run over. A month afterward a tumor of considerable size, the dimensions of which apparently varied, was found in the upper part of the abdomen, on the left side. After the accident the tumor gradually increased for eleven months, and came to occupy the middle line of the abdomen, pressing the stomach upward. It was opened, and the cyst wall was stitched to the abdominal wall. It contained forty-three onces of turbid fluid, containing five ounces of urea and a large amount of albumen. An excellent recovery took place; the cause of the tumor there was no data to show. The cure of a little girl, aged four years, was also given, who sustained the rupture of the left ureter. A large cystic tumor, containing urine, developed itself, which was first aspirated, and then tapped and drained. The kidney was felt projecting into the upper part of the cavity when it was opened. As the patient became liable to frequently recurring stages of high temperature, caused by accumulations of urine and pus in the bottom of the wound, it was decided to remove the kidney, which was done. Although the operation was a most trying one, the child made an excellent recovery. The sinus some months afterward had, however, not completely closed, but still continued to secrete a small amount of pus. It was pointed out, that the fact of 0.5 per cent of urea in some of the fluids drawn off was not a proof of the fluids being of renal origin; the fact of as much as 0.2 per cent of urea having been detected in ovariotomy fluid was mentioned.

In connection with the late long fasts undertaken by several men, some interesting experiments have been carried out on dogs. One dog, weighing thirty one pounds, condemned to a complete fast, died on the twentieth day. Another, of the same weight and race, but which was allowed to drink water, was still brisk and lively on the twentieth day. The experiment was continued up to forty days, and might have been pushed longer, the dog being in a fair state of health. On the twentieth day the dog that died weighed only four pounds; the other one weighed nineteen pounds, and from that moment it lost less in comparison every day, till on the fortieth day it weighed fifteen and one fourth pounds. During the forty days it drank nearly eight pounds of water, drinking less and less as the fast continued. As regards the difficult question of the resumption of nourishment, the dog settled it by eating two and one half pounds of soup and two pounds of meat without any unpleasant consequences, and it is now in first-class condition. Speaking of these experiments, a parliamentary paper has been issued, showing that the number of experiments performed on living animals in this country during the year 1886 was 1,035, an increase over the number performed in the preceding year mainly if not wholly due to the increase in the number of inoculation experiments. Of the total of 1,035 experiments, 297 were performed under the restriction of the license alone. The remaining 728 were performed not only under the restriction of the license, but also of certificates of various clauses previously submitted to and approved by the Secretary of State. Seventy experiments were for lecture or demonstration purposes in the departments of science and of medicine in the various universities and schools in England and Scotland, which are duly registered, an average of less than four experiments for lecture purposes in each school. No experiments were reported to have been done for the purpose of the further advancement of knowledge by testing previous discoveries.

In cases of organic lesion of the valves of the heart, iodoform administered in small doses has been recently found of use. About a grain in four pills, one to be taken every two hours, has rapidly dissipated the functional derangements dependent on the valvular disease. The experimental results obtained in dogs completely concur with those furnished by clinical experimentation in demonstrating that in dogs iodoform retards cardiac contraction, and this delay increases the total duration of each cardiac cycle, and also the efficiency of the systole.

Ice-water enemata are used with success in the Birmingham General Hospital in cases of collapse often seen during diarrhea in young children. It is claimed that one injection, two or three ounces, is very soon followed by sleep, and that, by the astringent effect on the congested vessels of the intestines, the diarrhea is diminished. It is further said that no depression or other bad effects have resulted.

An inquest has been held at Henley on the body of a child, aged two and a half years, who, while eating biscuits in the street, was attacked and severely hurt by a gamecock. The child lingered for two days and then died from blood poisoning.

The Anatomy of Movement is a subject ably treated in three lectures, delivered at the Royal College of Surgeons, by Mr. Francis Warner. The first lecture is on the Study of Movements, the second the Study of Modes of Growth, and the third on the Study of Pathology. All three contain interesting and curious information, calculated to be of considerable value to students of biology.

LONDON, May, 1887.

Translations.

THE IMPORTANCE OF POSITION IN DISEASES OF THE RESPIRATORY ORGANS.—(Dr. Von Brun.) I have never so much realized the lesson of my distinguished teacher, Traube, in regard to position in diseases of the respiratory organs as during a recent personal experience with pleurisy. In that case I had a vivid experience of the beneficent influence of decubitus on the affected side in the removal of subjective disturbances; the intense lancinating pain ceased, the dyspnea decreased and the stubborn, tearing cough disappeared. And when at the same time the objective symptoms, above all the exudate, in spite of the injured condition of my constitution due to previous disease, diminished with comparative rapidity, and the accumulated effusion was in a remarkably short time absorbed, I was confirmed in this conviction, that in this also continuous lateral decubitus had exerted a favorable influence. It appeared to me that by this means the lung, which had been glued to the vestal pleura and was being irritated by the breaking up of these adhesions, was permitted to rest, and, being shut off from the disturbance of respiration, was protected against the rubbing of the opposing surfaces and the resulting spread of the inflammation, which is the rule. On the grounds of this personal experience, since that time I have required all my patients suffering from inflammation of the pleura to lie on the affected side, and I have been thoroughly satisfied with the result. Subjective as well as objective symptoms exhibited a rapid improvement; effusion in cases treated early in this way scarcely began, and any already present was, as a rule, rapidly absorbed.

Influenced anew by these observations of the value of position to the patient, I asked myself whether or not in hemoptysis, that *crux medicorum*, a prescribed position of the patient might not lead to more rapid arrest of the hemorrhage, and I came to the conclusion, from theoretical reflection, that here also lying upon the bleeding side might be of advantage, for in nearly all cases of hemoptysis the source of the bleeding is in one or the other upper lobe of the lungs, and the bronchial twigs of these, while the body is in the vertical position, descend more or less vertically to the bronchus. Consequently, when the patient sits up in bed or occupies a half-sitting position, the escaping blood, obeying the law of its weight, runs down unopposed, collects in the bronchus and trachea, and by irritation of the nerves produces coughing; this forces out the collected blood, and, driven by the *vis a tergo*, fresh blood follows in the same way. In consequence of this vicious circle the escaping blood can not attain to either rest or coagulation, and the formation of thrombi is prevented. In this plight, according to my experience, the majority of patients in this condition are found in a high degree excited; they are usually found by the physician in a sitting or half-sitting position, coughing unceasingly, and with every cough bringing up, and then emptying, a mouthful of blood. The appearance of the doctor effects, for the most part in a moral way, a favorable quiet; but neither this nor the employment of the customary internal and external remedies are able to effect an immediate checking of the blood, and why? After what has been said, I now answer, "because the patient continues in his previous attitude. On the contrary, I lay my patient, whose condition is known to me, on the affected bleeding side, and exactly horizontal, so that the blood actually takes the lowest position, and so, pressed forward by the force of the heart and intravascular pressure only, the blood seeks the bronchia and trachea and is expectorated, but in constantly smaller quantities, since the disturbing influences, that previously operated to increase, in this position become an impediment to the flow.

The correctness of this reasoning being granted, it was to be expected that the escaping blood would pass more rapidly to the formation of clots for closing the mouths of the bleeding vessels. The result fully justified my expectations. In all my phthisical patients with hemorrhage, in whom the locality of the lesion and therefore the probable source of the blood was known to me, I took the precaution of having the patient to lie on the affected side, and in nearly every case with immediate success. The blood, till now welling up and escaping by mouthfuls, ceased without further medication, the coughing was arrested, and the patient obtained the longed-for rest, gladly submitting to the inconvenience and unpleasantness of the position.—*Memorabilien.*

Specialism or Death.—French surgery is dying. It breathes the death rattle, while in neighboring lands it is full of life.

I realize what an immense hugh and cry escapes from every surgical thorax in Paris, what an immense clamor rises to bury this arrogant blasphemy.

Unfortunately it is nothing but the simple truth.

French surgery is dying, after having been so brilliant, and it is dying although represented by a group of eminent men.

It is a veritable suicide, because it possesses all the elements of life.

A slow suicide, almost unconscious, brought about by routine, by blunders, and a little, although the avowal may be painful, by a certain degree of pride and vanity on the part of the leaders of surgery in our country.

These masters, of grand pretensions, descendants of great surgical celebrities, impress their opinions upon our legislators, our magistrates, our administrators.

One listens, one inclines. And little by little the evil gets the mastery. These eminent souls, having reached the summit of science and art, becoming great at twenty-one and remaining so ever afterward by a sort of *mirage* effect, wish their already senile ideas to prevail, and they succeed.

The young men, those who could lead an efficient reaction, put down by *concours*, by the mode of election, by a reign of terror, are forced mutely to bow in submission. The young listen with gaping mouth, the graybeards play the priest, and the public looks on.

And little by little the evil gains the mastery.

What is the evil?

It is the hatred, the contempt of specialization.

Surgery, says one, must be one and indivisable, or it will not be at all.

The specialist in the official world and among the arrogant of our universities, faculties, and academies, is held to be an inferior, often taken for a charlatan.

Charlatan of ophthalmology, charlatan of gynecology, charlatan of dentistry, and so of other departments.

Ignorant at least when he is not a charlatan.

Happy and haughty in the appreciation which they deem their due, our great masters, wrapped in their pride, accord only to themselves and to some *elevés* who surround them with flatteries the brevet of honesty and science.

Every surgeon who is a specialist is regarded as fallen or morally degraded.

The decree is respected, and the condition is made worse.

* * *

The remedy is nevertheless so effectual, so simple and so obvious.

This remedy is specialization.

Let specialism prevail and French surgery will soon recover all its glory.

The day when a man, even though he may be a surgeon of genius, shall realize that he can not know all, and that he shall become superior only in proportion as he restricts himself as much as possible, that day will be a day of light for our surgery.

It is a thorough specialization that we need, and not the timid efforts that are now made in that direction.

In each great hospital of Paris an accoucheur, a gynecologist, an ophthalmologist, a laryngologist, and a dentist are indispensable.

Among physicians engaged in general medicine, this one should have a service for diseases of the chest, that one for abdominal diseases, a third for those of the nervous system, and a fourth for general diseases.

In surgery one service should be devoted to traumatisms, another to the treatment of tumors, a third to orthopedics, etc.

It is only a sketch that I would trace, which time and experience can complete.

* * *

The principle admitted, how are we to succeed in gaining recruits for a medical service so varied?

Here is the plan, rapidly traced, which in my opinion will be the best:

1. Let only old *internes* be appointed to the hospitals. The *concours* of the *internat* will be the first sorting.

2. At the end of the *internat* there should be a second *concours* replacing the present useless gold medal. This *concours* is designed to assure on the part of candidates the requisite proficience in general knowledge.

3. Specialization will then begin; each one shall address himself to the scientific branch he may prefer, and a third special *concours*, relating exclusively to the matter of the specialty chosen, shall lead to the hospital.

Here is the remedy, or at all events a remedy for the present state; but the serene indifference in high scientific regions will postpone for many a day every kind of reform. A sad but true outlook.—*Journal de Méd. de Paris.*

Albuminuria Cured.—I have, beyond doubt, cured a case of albuminuria, accompanied with general anasarca, with the bromide of potassium and a diet of skimmed milk.—"*A. B. C.*" *in Iowa State Medical Reporter.*

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. III. SATURDAY, JUNE 11, 1887. No. 12.

D. W. YANDELL, M. D.,
H. A. COTTELL, M. D.,
D. T. SMITH, M. D., - - - Editors.

A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

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THE STATE SOCIETY.

Elsewhere in this issue is a list of the papers promised for the State Society, which opens at Paducah on the 15th inst.

The number is unprecedented, and it is clear that the Society will have all its available time consumed in the discussion of scientific topics. The profession of Southwestern Kentucky have made ample provision for the entertainment of members in attendance, and the success of the meeting is assured in advance. The attendance will doubtless be large, and the proceedings marked by features of unusual interest.

THE ACTUAL STATUS OF THE MICROBE IN RELATION TO DISEASE.

During the recent Health Conference in this city, discussion frequently reverted to the public wells as agents in the spread of typhoid fever.

That the shallower wells of the city must, in the course of time, or that many of them have already become contaminated to such an extent as to be injurious to the health of those using them, seems to be a natural and reasonable conclusion. It seems also quite probable that in some way the spread of typhoid fever, some two years since, was connected with the use of the water of these wells. But to our mind the alleged discovery of the typhoid bacillus in these wells exercises no weight whatever in any conclusion that we may reach. Even if we could be assured that the discovery was not prejudiced by error of observation, we require more abundant and satisfactory evidence that the true bacillus of typhoid fever has ever been isolated.

Those who are willing to accept conclusions based on a strong probability are excusable for finding for nearly every disease its specific microbe—and we do not positively deny that in many diseases the microbe has in fact been found; but, for our part, we wish to enter the verdict of "not proven."

Nothing in bacteriology seemed more conclusive at one time than that the comma-bacillus of Koch was the exclusive cause of cholera.

Yet Klein has shown that a small straight bacillus, only one sixth the size of the comma-bacillus, is as constant in the cholera dejecta as the comma-bacillus, and in this he is borne out by Von Emmerich, Kern, Pettenkofer, and others. It is therefore quite as likely to be the cause of cholera as the comma-bacillus of Koch. So it is safe to say that the comma-bacillus has no just claims to be considered as the true cause of cholera.

So with the typhoid bacillus. No bacillus has ever been known to produce typhoid fever. A certain character of bacillus has been frequently found in the dejecta of typhoid fever, and some have claimed to have found it in blood from the spleen, though it may be said of those who found it in blood drawn from the spleen of the living, that they were anxious to find it. But however often it may have been found as an accompaniment of typhoid fever, there is no more reason for regarding it as the cause of the disease than some other microbe, which, from not taking the stain or other reason, has not yet been discovered. If this be true of cholera, why may it not be also true of typhoid? Furthermore, the comma-bacillus and the so-called typhoid bacillus have both been found in abundance, when neither of the diseases they are supposed to cause had any existence in the locality.

It may seem a little strange, too, that while in Louisville the cry is for river-water as a preventive of typhoid fever, in Paris the complaint is that river-water is the source of typhoid fever. The last issue of the British Medical Journal refers to such a protest on the part of the citizens of Paris, who have petitioned the public authorities to announce to consumers in advance, if at any-time it becomes necessary to supplement the water-supply of Paris, now mostly obtained from springs and wells, with the water of the Seine, in order that proper precautions may be taken against the spread of typhoid fever.

EDITORIAL CORRESPONDENCE.

AMERICAN SURGICAL ASSOCIATION.

WASHINGTON, May 13th.

I had time, in my letter of yesterday, to give only a summary of Dr. Dennis' paper on Supra-Pubic Cystotomy. The second paper was by Dr. John H. Packard, of Philadelphia, on

SUPRA-PUBIC CYSTOTOMY FOR OTHER PURPOSES THAN THE REMOVAL OF CALCULI.

It embraced a report of a number of cases where he had done the operation for foreign bodies in the bladder, introduced through the urethra, and also cases of permanent retention due to enlarged prostate and obstinate stricture. He described in detail the method of procedure which he had found best. He concluded his very learned paper with this question: "If the supra-pubic section had been first tried, as now generally done, is it likely that the perineal operation would have been afterward performed on account of its greater ease, simplicity, and efficiency?"

The third paper was by Dr. A. Vandeveer, of Albany, New York, on

VESICAL CALCULI AND THE DIFFERENT METHODS EMPLOYED FOR THEIR REMOVAL.

The essay was mainly made up of detailed histories of forty-one cases upon which he had operated. Referring to supra-pubic lithotomy, the author said he thought the operation would finally be limited to cases of large and, in some instances, of sacculated stone, and where in male adults there was chronic cystitis. On anatomical grounds the supra-pubic method is much simpler in the youth, because of the bladder being much higher in the pelvis at this time of life. He did not think that we would get from it as large per centage of recoveries. In the tables he had collected, embracing one hundred and forty two cases in adults, the mortality was twenty-two per cent, and in one hundred and thirteen cases, in children under fifteen years, the mortality was a little over ten per cent.

He preferred litholapaxy where the stone is of moderate size, and said that, contrary to the teachings of a few years back, the operation can be safely done in young male children if proper instruments are used. He thought rapid dilatation of the urethra or supra-pubic lithotomy in girls would be sufficient. In adult women he would add in certain cases vaginal lithotomy.

Dr. W. T. Briggs, of Nashville, Tenn., opened the discussion of these several papers with the remark that he did not agree with one of the essayists, who predicted the time would come when the high operation and litholapaxy would be the only procedures adopted for the removal of stone. He fully agreed that in stones of great size, or in certain deformities of the pelvis and lower extremities, the supra-pubic method would at times be the best. He was unable to see, however, why in stones of medium size the perineal operation should be abandoned. He thought the best operation was that through the median line. The resistance which is usually met with at the neck of the bladder, he had found to be easily overcome by a lateral incision of three lines on each side of the prostate, when with gradual dilatation the opening can be enlarged sufficiently to allow the removal of any stone that should be removed through the perineum. He saw no reason why, after the bladder had been opened by this method and the stone found unexpectedly large, it should not be crushed by the instruments in use for that purpose. He thought the operation done in the manner he had described would give a smaller death-rate than litholapaxy. His first seventy-four cases all recovered. He then had two deaths in succession. In one, a pelvic abscess, and in the other, a very bad state of general health complicated the case. He then cut forty-six cases with but one death, this case dying three months after the operation, with general tuberculosis, the wound never having united.

Dr. D. Hayes Agnew, of Philadelphia, said we should not commit ourselves positively to any single operation. He regarded the median operation as the safest of all procedures for the removal of calculi of ordinary size. He thought the only mischief likely to follow here was in extracting the stone, and this he felt could be avoided by nicking the neck of the bladder, which could then be distended to any desired amount. When the stone proves unduly large, the incision may be extended on either side of the prostate. He was very sure that drainage could be more readily effected in this than in the high operation. He agreed that in cases of large stone the high operation was best.

Dr. D. W. Yandell, of Louisville, Ky., remarked: I regret not having heard the early part of the discussion, for just at this time the subject is of special interest, and what is said of it here will have much weight when the evidence is finally summed up. I concur in large part with my distinguished friend on my left (Dr. Agnew). Although I was not present when Dr. Briggs made his remarks, I know pretty well what he said, for I know personally of his great success with the perineal operation. My own experience with the three operations, lithotomy, lithotrity, and litholapaxy reaches 106 cases: 92 by the perineum, 8 by lithotrity, and 6 by litholapaxy. I have never done supra-pubic lithotomy, and have seen it done but twice. On neither of these occasions, though the operation was done on both by exceedingly clever surgeons, did it impress me as being superior to either the lateral or bilateral method. It did not seem so easy of execution; it clearly required more time. And if injury to the virile powers of the patient is not considered, I am unable to see wherein it is safer. And to-day, with all the reports of successes both at home and abroad, and in spite of the very positive statements of the able men here who have advocated the procedure, I still see no sufficient reason why, in stones of ordinary size and character, I should abandon the methods I have hitherto followed. They have certainly seemed to me altogether sufficient. Seven per cent only of my lithotomies ended fatally, and one of these cases died from erysipelas, and another from surgical kidney. It is true that most of the subjects were young persons, but still I had a due proportion among old men. In none of them was there a return of the stone. I have been less fortunate in this latter respect with both crushing operations, for I had two returns of stone in my eight lithotrities, and two ditto in the six Bigelows. I take it, however, that the four double operations were made necessary by the want of skill and experience on my part, rather than through any defect in the procedures themselves. I was no more successful than Dr. Vanderveer in the extraction of all the *debris*, and certainly, in the report he has just read, he has shown himself a capable man with both knife and lithotrite. To my mind the question is still *sub-judice*, and must remain so until much more evidence has been accumulated. When calculi are too large to be taken out through the perineum, they should certainly be removed by opening the bladder at its fundus, and the procedure is clearly a very safe one. When calculi are of suitable size and in suitable subjects they should, I think, certainly be crushed. When they are too hard to be crushed, the surgeon may choose between cutting above or below the pubes. And the choice is necessarily governed by many circumstances, none of which I need enumerate here. I will close with the remark that no one procedure for extracting stone from the bladder is applicable to all cases, and we should congratulate ourselves, therefore, that we possess so many means for accomplishing that purpose.

Dr. John B. Roberts, of Philadelphia, said: The high operation is certain to play a very important part in the future surgery of the bladder. It unquestionably permitted a much freer exploration of the bladder than when this organ was opened through the perineum, and he also thought that where the surgeon had no experience with either of the cuttting operations, the supra-pubic method would prove the safest. He did not agree with Dr. Packard's suggestion in regard to treating retention of urine from stricture by supra-pubic cystotomy. He thought that long and persistent effort should be made by the surgeon to introduce a filiform bougie into the bladder, by which the urine in due time would drain away. Failing in this, simple aspiration above the pubes, which is both a safe and simple procedure, repeated at intervals for a few days, will almost always secure in a short time sufficient patency of the urethra for the introduction of instruments.

Dr. J. Michael, of Baltimore, agreed with the previous speakers as to the advisability of the supra-pubic operation for exploration, also in exceptional cases of foreign bodies in the bladder, and in certain cases of extreme prostatic enlargement. He thought, however, with Dr. Roberts, that in retention of urine due to ordinary stricture or prostatic disease, aspiration of the bladder was all that was needed.

The best piece of original work presented to the Association was by Dr. J. Collins Warren, of Boston, entitled,

A STUDY OF THE PROCESS OF REPAIR AFTER RESECTION OF THE INTESTINES, AND SOME OF THE COMPLICATIONS WHICH OCCUR.

The author referred to the anatomy of the wall of the intestine, calling particular attention to the thin submucous, fibrous coat, which was the strongest of the various coats of the intestine. In introducing the sutures in cases of wound of the bowel it is desirable that a few fibers of this fibrous coat be included; but care must be taken not to perforate the mucous membrane. A number of experiments made upon dogs were then described. The operation consisted in removing a portion of the intestine and a V-shaped portion of the mesentery, and then bringing the parts together. The Lembert suture was the one used. The dogs were killed at varying times after the operation, from three to eight days. In these cases the intestines were found matted together around the seat of operation, but a current of water flowed freely through the gut. In one case the abdomen was opened a few days after the operation, and this matting together of the various coils of intestine was found. The intestine was replaced and the wound again closed. Six months later most of the adhesions were found to have disappeared.

The experiments brought to mind those made by the elder Gross in the same line of thought in the University of Louisville, now more than forty years ago. Dr. Warren did his work in the same painstaking and intelligent way, and the conclusions he has reached will remain of permanent value to surgical science.

Dr. Charles B. Nancrede, of Philadelphia, read a paper on

SHOULD LAPAROTOMY BE DONE FOR PENETRATING GUN-SHOT WOUNDS OF THE ABDOMEN INVOLVING THE VISCERA?

The author made reference to the experiments of Wegner and Grawitz, and said the practical application of these experiments teaches that all blood and serum should be removed and free drainage provided; every wounded surface must be coaptated; if a tube is used, the opening must be carefully guarded; the depression of the circulation present during shock must be overcome, and the vascularity of the peritoneum must be kept as near the normal as possible.

When visceral wounds exist the tendency of these cases is invariably toward death. Hemorrhage in itself is rarely fatal, but a very small collection of blood may be followed by fatal consequences, either through the induction of sapremia or by furnishing pabulum for the development of organisms productive of suppurative peritonitis. In nearly every case death is due to septic peritonitis caused by extravasated matters. Of those attacked with peritonitis ninety per cent die within twenty-four hours.

Shock and the risk of rendering a peritonitis septic and diffused, which might have remained local and simple, are the dangers of laparotomy. But as we have the power of rendering the inflammation resulting from the manipulations innocuous, shock is practically the only result to be dreaded.

If these facts and the deductions from them be true, all ball wounds of the abdomen involving the stomach, intestines, bile, or urinary bladder should be treated by suture or by resection and suture; injured omentum should always be excised, and the serous surfaces carefully sutured. Wounds of the liver and pancreas are to be treated in the manner to be described. A wounded spleen or kidney is to be removed, provided certain contra-indications do not exist. Even penetrating wounds of the abdomen without involvement of the viscera are better treated by exploratory section than by the expectant method. In many instances unsuspected injuries of the blood-vessels and viscera will be found and can be appropriately treated. The track of the ball should be enlarged, under aseptic precautions, until it has been determined whether or not the peritoneum has been opened. Then median section should be performed to ascertain the existence of and to repair any damage that may have been done. The above remarks can only apply to wounds of the anterior and lateral walls of the abdomen. When the posterior wall is involved, it is unadvisable to ascertain the fact of peritoneal penetration by direct exploration. In these cases a correct opinion is almost always difficult and often impossible without laparotomy.

Profound shock, if not due to hemorrhage, is a contra-indication to operation. The surroundings should not contra-indicate operation in a proper case, provided the operator be expert in abdominal surgery. Most cases will do better if left to nature than they will if operated on by a bungling surgeon. If well-advanced peritonitis exists, laparotomy is contra-indicated. Where there is no visceral complication, operation under these circumstances may sometimes be justifiable. Laparotomy, if done at all, should be done at the earliest possible moment that the condition will admit of it. Shock is the only thing that should delay the operation, and this should not do so if the condition is produced by hemorrhage.

In operating strict antiseptic precautions should be carried out. The incision should always be median, extending from a short distance above the umbilicus to two inches above the the pubes. The source of a severe hemorrhage must at once be sought after. Wounds of the bowels should be secured with the Lembert suture and dusted with a little iodoform. Wounds of the liver, if occupying its free border, should be coaptated, if possible, with dry aseptic catgut, which will soon swell and fill the track made by the needle. Wounds of the bladder had better be united with dry catgut. Contused portions of the bowel should be excised. Wounded or contused omentum or mesentery should also be removed. Should the pulse fail during the operation, flushing the abdominal cavity with hot water is often of service. Wounds of the peritoneum should be united. In closing the abdominal cavity, the peritoneum should be sutured with fine silk or catgut. The muscular, aponeurotic, and cutaneous structures should then be united with strong silk. The wound should be dusted with iodoform, and the dressing completed by the application of a pad of absorbent cotton and a flannel bandage.

Alimentation should be carried on by the rectum for forty-eight hours when possible. Where peritonitis comes on after the operation, the treatment will depend upon whether it has developed rapidly or gradually. In the former case there is often evidence of shock from vasomotor paresis, and in these cases small doses of morphia with atropia will be of service, while large doses of opium may prove fatal. This should be continued until pain is relieved and the patient falls into a quiet sleep, from which he is readily aroused. In the latter stages of peritonitis one or more hypodermics of atropia will at times save otherwise hopeless cases. For the control of the vascular processes involved in peritonitis we have two powerful measures in the ice-coil to the abdomen and in the use of leeches, if applied early and the patient has not lost much blood. If the temperature continues to rise, despite treatment, it is probable that ptomaines are being absorbed, producing sapremia. In such cases irrigation with safe antiseptic fluids is indicated.

Dr. R. A. Kinloch, of Charleston, and Dr. W. W. Keen, of Philadelphia, each reported a case of

PISTOL-SHOT WOUND OF ABDOMEN,

in which laparotomy was done. In Dr. Keen's case he deemed it necessary, in order to arrest the hemorrhage, to peel out the left kidney from its capsule and tie the pedicle. Both cases ended fatally.

Dr. P. S. Conner, of Cincinnati, opened the discussion with the remark that when an operation is required we are all agreed as to what should be done. But the most important point to determine is, when should the abdominal cavity be opened? There is no single symptom or collection of symptoms to be relied upon. If, however, the temperature remains subnormal four, five, or six hours, penetration and perforation may be considered almost certain. Diagnostial laparotomy is advisable in certain cases. Many of these cases necessarily involve legal investigation, and it is a very simple matter to show that death resulted not from the original injury, but from the surgeon's knife. While it is wise to lay down the general rule that penetrating wounds of the abdomen, and still more, perforating wounds of the viscera, should be submitted to laparotomy, at the same time we are not justified in laying this down as a hard-and-fast rule.

Dr. Moses Gunn, of Chicago, thought that we are now all prepared to say that laparotomy under these circumstances is a proper measure to pursue, but the only question is how to make the diagnosis. We have, as has been said, no positive signs of visceral injury. He held that we are fully warranted in saying that we may resort to laparotomy for purposes of diagnosis when we are in doubt.

Dr. T. G. Richardson, of New Orleans, gave some statistics of the Charity Hospital of New Orleans, showing that in the last five years there had been thirty-one cases of penetrating knife-wounds of the abdomen, of which twenty-four recovered and seven died. There were thirty-three cases of gun-shot wound of the abdomen, with thirteen recoveries and twenty deaths. Laparotomy was performed in one of the fatal cases of gun-shot wound; all the others were treated on the expectant plan.

Dr. D. Hayes Agnew, of Philadelphia, believed that where there is a reasonable degree of evidence that there is a penetrating wound of the abdominal wall, especially if a shot wound, it is the surgeon's duty to make an exploratory incision. We are not to be deterred by the possibility of some legal technicality if the case should come into court. We are to do our duty without reference to the consequences.

Dr. D. Hayes Agnew read a paper entitled,

THE MEDICO-LEGAL ASPECT OF CRANIAL AND HEART WOUNDS.

The study of this subject had been suggested to him by a recent case occurring in Newport, R. I. The question was as to the possibility of a cranial wound and a wound of the heart being self-inflicted. A colored man was found one morning lying dead under the breakfast-table. He had food in his mouth, and had a wound of the head and of the heart. The coroner's jury rendered a verdict of suicide, and the body was buried. Subsequently it was disinterred and the verdict reconsidered, and the conclusion reached that the man had been murdered. Suspicion then fell upon the son-in-law of the man, who had up to this time borne a good reputation. At the trial five medical experts were called for the prosecution, and their general testimony was that these wounds were incompatible with the idea of suicide. Subsequently the prisoner confessed that he had committed the murder. As this was an important question, the author had investigated it. There are two conditions resulting from injury of the head which would prevent the infliction of a second injury. These are unconsciousness and paralysis of one or both upper extremities. Injury to the brain is not necessarily followed by loss of consciousness or by paralysis. Many cases were cited to show the truthfulness of this statement. Numerous instances of heart injury were given in which, after the reception of the accident, the individual was able to perform many acts. Cases were also given in which persons, in attempting suicide, had produced injuries of the head and of the heart. As the result of his study, the speaker concluded that it is possible for a ball to enter the brain without destroying consciousness, although after a moment it may cause mental confusion, and that a suicide may shoot himself in the head, and, after a moment, shoot himself in the heart.

Dr. L. McLane Tiffany thought there could be no doubt of the ability of an individual to shoot himself through the head and afterward through the heart, as asserted, or through the heart first and afterward through the head. He had seen cases both where the head was severely wounded without producing death, and where large wounds of the heart were present without destroying life. There are, however, many things besides anatomical conditions to be considered in the case of a suicide. First of these is the presence of powder-marks. Nothing was said in the paper about the individual having these marks about his person. Next, could a man point a pistol in the direction that it would go from apex to base, as described here, assuming that he were right-handed? The simple description of the anatomical points of a *post-mortem* is but a small part to be considered. It is extremely rare that a right-handed man shoots himself in the left side of the body. In conclusion, he recalled the case narrated in Taylor's Jurisprudence, in which a double-barrel shot-gun was accidentally discharged, the first load striking the individual in the chest, the recoil causing the remaining load to be discharged into his back.

Dr. John B. Roberts reported the case of a man who had shot two bullets into his head and afterward shot himself in the left side. In regard to the possibility of a man's shooting himself in the heart first and the head afterward, he agreed with Dr. Tiffany. He referred also to a paper read by himself before the College of Physicians of Philadelphia, in 1883, in which he called attention to the experiments of Dr. Block, tending to show that the heart may be sutured in cases of penetrating wounds.

Dr. E. M. Moore thought that none of the members would be seduced into very readily permitting a man to be buried as a suicide under such circumstances, for, although possible, such shooting is exceedingly unlikely to occur. He had seen a number of cases in which suicide had been attempted by passing a very small bullet into the brain; all were attended by immediate or almost immediate unconsciousness. The general condition, the shock, the hemorrhage, or the attendant conditions of mind are usually sufficient to produce unconsciousness, so that while it seems certainly possible for a man to inflict the second injury referred to, it is certainly very improbable.

Dr. P. S. Conner stated that bullet wounds of the heart are by no means necessarily fatal, since he had put on record ten years ago, a case in which a bullet had passed through three cavities of the heart, and the subject, a boy, had lived three years and some months afterward. In order further to demonstrate the possibility of such an occurrence, he had, with the aid of the late Prof. Longworth, made a number of experiments, and had found that it is not at all difficult to pass a needle through all four cavities of the heart. The specimen in question was for a long time in the museum of the Medical College of Ohio, but careful search recently had failed to find it.

Dr. A. R. Kinloch reported a case in which the question was whether it was accidental or suicidal shooting of the head. Upon examination he found the heavy beard of the individual presented no evidences of powder upon superficial examination, but that when examined more closely a deep furrow was found, involving not only the base of the beard, but extending into the skin. This proves that the pistol had been intentionally placed well into the beard before it was fired.

Dr. David W. Yandell: A man stabbed another in the heart. The injured man chased his assailant one hundred and fifty feet, struck him, nearly killed him, fell, and died in an instant.

A man standing behind the counter in his store was shot in the left ventricle. He ran around the counter, a distance of twenty feet, hit the man who had shot him on the head with a hammer, and killed him by the blow.

My buggy boy, aged fourteen, dozed while sitting in the buggy, and dropped the reins. In endeavoring to catch them, he fell under the horse's feet and had a large portion of the vertex of his skull kicked in. He jumped up, walked a hundred and fifty feet, and sat down in the kitchen. He remained sitting and chatting until he saw me approaching, when he fell in a faint. I removed six or eight pieces of bone. He recovered without a bad symptom.

Dr. T. F. Prewett, of St. Louis, narrated two cases. One was that of a man who, after shooting his wife, shot himself through the frontal bone. He never became unconscious, and apparently recovered. He was sent to the penitentiary, and a year later died of abscess of the brain. A few months ago a boy of eight or nine years of age put a pistol to his head and fired. The bullet passed through the left parietal bone into the skull. A probe demonstrated that it had passed beyond the skull, and a little piece of brain was found in the wound. The boy never lost consciousness, but recovered, and is now apparently perfectly well.

Dr. T. R. Varick stated that he had a few years ago testified in a case in which a young man was indicted for killing his schoolmate. A young lady, an eye-witness, swore that the two young men grappled and fell, and that the defendant laid his hand on the shoulder of the one killed, and, with the pistol in his right hand, shot and killed him. On the other hand, the defense claimed that the pistol was discharged accidentally in the fall. The question was then raised as to the position in which the parties were at the time the pistol was discharged, and the question of powder-marks was an important one. He made some experments in this regard with sheets of paper. He found that up to a distance of two and a half feet there were marks of powder, increasing in intensity as the distance was shortened. The ball in this case entered the squamous portion just above the zygoma, and lodged in the hemisphere of the brain, having passed from before backward. The ball was so flattened that it could not be made to enter the barrel of the pistol from which it was alleged to have been shot. No powder-marks were discovered on the person of the killed, and the defendant was acquitted.

The following are

OFFICERS FOR THE ENSUING YEAR.

President, D. Hays Agnew, M. D., of Philadelphia.

Vice-Presidents, N. Senn, M. D., of Milwaukee; F. S. Dennis, M. D., of New York.

Secretary, J. R. Weist, M. D., of Richmond, Indiana.

Recorder, J. Ewing Mears, M. D., of Philadelphia.

Treasurer, Phineas S. Conner, M. D., of Cincinnati.

Member of Council, John S. Billings, M. D., of Washington.

Dr. L. McLane Tiffany, of Baltimore, read a paper on

SURGICAL DISEASES OF THE WHITE AND COLORED RACES COMPARED.

He stated that the statistics presented were prepared from the records of 4,930 surgical cases, most of them derived from out-door patients, but some of them were also traced into hospital. Of the 4,930, thirty-six per cent were negroes. Included among the negroes were also mulattoes. He had observed that, while there is a considerable difference between the whites and the black negroes in their behavior in disease, this difference was subject to gradations corresponding to the gradations of color.

Most of his observations were presented in tabular form, and we must omit them here.

Pus formations are exceedingly likely to occur in the negro. In syphilis early adenopathy occurs, sometimes huge masses form in the groin, and these often suppurate. Chronic syphilitic suppurations are often encountered, but less frequently than scrofulous ones.

Spinal caries is most frequently located in the dorsal region of the negro. Cured Pott's disease in the middle-aged negro is very rare.

Dislocations are more frequent in the white.

Lateral curvature of the spine is more frequent in the white.

Keloid is characteristically more frequent in the negro.

Lipoma is most frequent in the negro; sebaceous cyst more frequent in the white (eighty-eight per cent); nevus is also more frequent in the white.

Carcinoma has been more frequently encountered in the white. The essayist had never seen an epithelioma of the lip or any part of the face in a negro. Osteo-sarcoma is, however, frequent in the latter. The pure ovarian cyst is more frequent in the white, but fibromata or adeno-fibroma is much more frequent in the negro.

Gonorrheal rheumatism and inflammatory gonorrhea are rare in the negro.

In hospital he observed that the negro bore operations well—better, as a rule, than the white—but their reaction after accidents was not so good as that of the whites.

In conclusion he offered the following suggestions:

1. Surgical affections pursue different courses in the white and colored races under identical hygienic surroundings.
2. Surgical operations and injuries are better borne by negroes than by whites.
3. Surgical diseases involving the lymphatic system, especially tubercular, are more fatal in negroes than in whites.
4. Congenital deformities are more rare in negroes than in whites.
5. Surgical differences observed between negroes and whites are due to racial peculiarities.

Dr. Christopher Johnston agreed with the conclusions in general, but added that there are individual peculiarities that are as great as any others. He also had observed that the negro bore surgical operations better, and required less hospital treatment than the whites. He had never observed carbuncle in the negro He had, however, observed epithelioma in a few cases; the first penis he had ever amputated being that of a dark negro for this disease. Fibromata are more frequent than in the white race. Keloid, also, is characteristically prominent in the negro. The skin and lymphatic tissues are more liable to disease than in the white race.

Dr. T. G. Richardson briefly sketched the records of a few diseases in the New Orleans Hospital. He could corroborate the statements of Drs. Tiffany and Johnston, that it is rare to find congenital deformities in the negro. He concluded by calling attention to the fact that his statistics gave only the number of cases treated, without taking into consideration the relative proportion of each race.

Dr. E. H. Gregory, of St. Louis, had never seen a cancer on the lower lip of the negro, and thought it singular that stricture of the urethra is so uncommon in the negro. He had never seen a ganglion in the negro, although they are common in the white man. He had arrived at the conclusion that the negro bears surgical operations about as well as the white man, but he could not say that he had any advantage in that regard. Negroes are tubercular, and mulattoes are even more exposed to the disease than the black negro, so that they ought to make the worst subjects of surgical operations.

Dr. W. T. Briggs, of Nashville, said his experience confirmed in a remarkable degree the statistics of Dr. Tiffany. It is seldom that a negro is not the subject of a scrofulous diathesis. They are, therefore, more subject to suppurations; almost any occasion will give rise to a suppuration. Nearly all operations will have a suppurative action; and sometimes they are very prostrating. Negroes bear a surgical operation probably better than whites, the mere operation itself, because they can have no appreciation of the magnitude of an operation, or the dangers to them; nor do they care much as to the result. They have more religion than white men, and are not so much afraid to die. When in the hospital they are better off than at home, and do not care to get out, and for this reason their convalescence may be longer. Their temperature seldom rises so high as that of the white man, but that they recover as rapidly as the latter he did not believe. In regard to malformations, while he did not think that they are so frequent in the negro, yet he had met with all kinds of malformations; he had seen half a dozen club-feet in the negro, and he had operated upon the negro for harelip. Spina bifida he had seen on several occasions; hydroceles do occur; the first case he operated upon was in a negro, and was of enormous size, reaching almost to the knee; and he sees a case, on an average, once a year. Keloid is common, and if removed returns twice as large. Cancerous affections are not as common as in the whites. Lupus of the face is frequent, and is frequently seen upon the penis also. Uterine fibroids are very common in the negro, and the greatest number of tumors in the negro race belong to that class—fibroids or fibrocystic tumors. He had twice a typical ovarian tumor in a negro.

Dr. David W. Yandell, of Louisville: I have no statistics to offer upon this subject, but I have listened with exceeding interest to the excellent paper and to the remarks of the gentlemen who have preceded me. I agree in the main with the last speaker, though my experience has been somewhat different on certain points. I never saw a case of keloid in the white race. I have seen many in the negro. I have seen but two cases of hydrocele in the negro; this, I think, is explained by the remark of Dr. Briggs. I agree with Dr. Briggs in reference to the tendency to suppuration in the negro. I find that it often follows, even when every precaution is taken to prevent it. I think that negroes bear operations well, but convalesce slowly. Whether in hospital practice this is due to the fact that they are comfortable in hospital or not, I can not say, but I think it a fact that they recover from traumatism slowly.

I have never seen harelip in the negro, and but two cases of club foot; one was in the service of my friend from New Orleans, when he was connected with the University of Louisville. I have seen but two ovarian tumors in the black race, and never an epithelioma on the face of a negro. I have, however, occasionally seen it on the penis. Epilepsy is exceedingly rare among negroes. I have seldom seen tetanus among the blacks. I never saw internal hemorrhoids in the negro, and I have met with but two instances of fistula in ano. Livingstone, in his book of travels in Africa, I am told by the President, reports no hemorrhoids and no dyspepsia among the native Africans. I think dyspepsia exceedingly rare among negroes; they are given by nature great food consuming capacity, and are usually ready and able to eat any thing and digest every thing set before them. I find stricture of the urethra very common among negroes.

Dr. Kinloch desired to call attention to two points: first, the liability of the negro to suppuration, and, second, his power to undergo operations and recover from them. He thought it a mistake to class all negroes together in regard to the liability of suppuration. It is difficult to separate the negro from the hybrid mulatto. He differed from some of the speakers with regard to the liability of the pure negro to suppuration, for he thought this liability much less than in the white man. He did not think that the pure negro is as strumous as the mulatto, nor that the former is affected with the extremes of syphilitic disease; the poison seems to die out more readily in them. The mulatto, on the other hand, is almost always strumous; we certainly see them in our hospitals with suppuration in the glands of the neck and groin. Syphilis rarely ends with them, but passes on and becomes mixed up with struma, and it is difficult to say whether you are treating syphilis or struma. The negro, he thought, recovers well. This is in part probably owing to the character of his nervous system. The negro is more apathetic, as Dr. Briggs has said, and has not to contend with the peculiarly depressing influences on the nervous system.

Dr. L. McLane Tiffany thought that it should be remembered that the true negro is at present very seldom seen. The difference between the resistance of the true negro and that of the mulatto is well illustrated in the teeth. The negro seldom loses his teeth, but the mulatto has teeth of no resistance at all. Studying the peculiarities of the negro race, he said, is a sort of laboratory work.

Notes and Queries.

Editors American Practitioner and News:

Kentucky State Medical Society.—The following is a list of the papers to be read at the next meeting of the Kentucky State Medical Society, at Paducah, beginning June 15th:

Report on Progress of Practical Medicine, J. B. Marvin, M. D., Louisville.

Report on Progress of Surgery, Ap Morgan Vance, M. D., Louisville.

Report on Progress of Obstetrics, R. C. McChord, M. D., Lebanon.

Report on Progress of Public Hygiene, Wm. Bailey, M. D., Louisville.

The Advantages and Uses of Cocaine, Andrew Seargent, M. D., Hopkinsville.

Report on the Progress of Ophthalmology, Wm. Cheatham, M. D., Louisville.

The Permanent Removal of Superfluous Hair by Electrolysis, I. N. Bloom, M. D., Louisville.

Surgical Emergencies, O. D. Todd, M. D., Eminence.

Is Malaria an Entity? T. B. Greenley, M.D., West Point.

Report on Genito-Urinary Diseases, E. R. Palmer, M. D., Louisville.

Report on Abdominal Surgery, L. S. McMurtry, M. D., Danville.

Report on Diseases of the Rectum, J. M. Mathews, M. D., Louisville.

The Prophylaxis of Pulmonary Tuberculosis, J. A. Ouchterlony, M. D., Louisville.

Chloroform as Used During Thirty-Nine Years in Louisville, D. W. Yandell, M. D., Louisville.

The Modern Treatment of Wounds, A. P. Jenkins, M. D., Henderson.

Recent Discoveries in Pathology, Dudley S. Reynolds, M. D., Louisville.

Report on Laryngology, M. F. Coomes, M. D., Louisville.

The Prevention and Spread of Contagious Diseases, J. N. McCormack, M. D., Bowling Green.

The Indications and Contra-indications for the Use of Hot and Cold Applications in Ophthalmic Practice, J. M. Ray, M. D., Louisville.

External Perineal Urethrotomy, Archibald Dixon, M. D., Henderson.

To Whom is the Human Race Indebted for the Healing Art? James Rawlins, M. D., Georgetown.

Practical Thoughts on Uterine Diseases, J. D. Smith, M. D., Paducah.

The Natural Method in Plastic Surgery, Ed. von Donhoff, M. D., Louisville.

Rupture of Urinary Bladder, John Young Brown, M. D., Henderson.

Pelvic Abscess, J. H. Letcher, M. D., Henderson.

Scarlatina, I. H. McKinley, M. D., Winchester.

Remarks on Pneumonia, C. A. Elliott, M.D., Paducah.

On Pneumonia, J. P. Thomas, M. D., Pembroke.

Infant Diarrhea, F. O. Young, M. D., Lexington.

Diagnosis of Surgical Lesions of the Kidney, H. H. Grant, M. D., Louisville.

The Elimination of Medicines by the Mammary Gland, John G. Cecil, M. D., Louisville.

Foreign Bodies in the Eye, W. M. Cowgill, M. D., Paducah.

Suicide Viewed Medico-legally, B. W. Stone, M. D., Hopkinsville.

The Effects of Astigmatism of Low Degree, S. G. Dabney, M. D., Louisville.

Early Diagnosis and Treatment of Spondylitis, J. G. Carpenter, M. D., Stanford.

Cholera, J. M. Jackson, M. D., Columbus.

The Pupil in Health and Disease, Wm. Cheatham, M. D., Louisville.

On Suppurative Pleuritis, George Beeler, M. D., Clinton.

Removal of Nevi by Electrolysis, S. E. Woody, M. D., Louisville.

STEELE BAILEY, M. D.,
STANFORD, KY., June 4, 1887. *Secretary.*

MITCHELL DISTRICT MEDICAL SOCIETY.—The next semi-annual meeting of the Mitchell District Medical Society will be held at French Lick Springs, Indiana, June 30th and July 1st and 2d, 1887.

The membership of the Society is made up principally by the counties of Lawrence, Orange, Martin, Monroe, Washington, Floyd, Clark, Jackson, Brown, Gibson, Bartholomew, and Marion, and consist of about four hundred members.

The Society is in excellent working order—all the meetings are interesting and largely attended.

For particulars as to the meeting, address Dr. G. W. Burton, Secretary, Mitchell, Ind.

U. H. HON, M. D.,
Chairman, Paoli, Ind.

JOHN A. RITTER,
Secretary, Orangeville, Ind.

THE HEALTH CONFERENCE.—In so far as relates to the excellent character of the papers contributed and the discussions they educed, the recent Health Conference in this city was a decided success.

It is rare that on so short a notice an equally large number of papers of excellent character can be elicited.

While the papers contributed by the medical men did credit to their authors, those contributed by the laymen, who are not supposed to be so familiar with the discussion of hygienic matters, were especially commendable. If it were fair to single out any from the list, especial mention might be made of the learned and lucid paper of Major Davis, who always illuminates whatever he touches; that of Miss Katie Palmer, paper on Hygiene in the Public Schools, and that of Miss Annie Nold, on Twenty Years Experience in the School-room, both of which were eminently creditable to their gifted authors.

It was somewhat unfortunate that certain questions of local and temporary interest were forced into too great prominence. These were calculated to distract attention from broader questions involving the principles and practice of hygiene, and to act as a hindrance of the educational influence the conference was otherwise so well calculated to promote.

Babies.—The many articles that are appearing in both American and French papers on the great mortality of babies before they reach twelve months of age, tells of the widespread interest taken in the death of the innocents. There is no doubt that the puny, unhealthy baby born of unhealthy parents has little chance of survival, and leaves its more healthy fellow alone in the race for life. Putting all these cases aside, there is still the sad fact that thousands of babies are killed by improper feeding and want of proper care. This is notably the case with babies " put out " to nurse. We have had some experience of this, and unhesitatingly we say, that nothing can be more horrible and more heart-sickening than the appearance of a " nursed baby," when it has been about six weeks in the care of the " nurse." As one strips the clothes off the poor little scrap of humanity, one can not but shudder; life is hardly recognizable, a loose, yellowish dirty parchment-like skin hangs in folds round the poor little bones, that now look so angular and so misshapen. Eyes more ghastly never looked from a skull than the faintly moaning little sufferer discloses as the lids are raised, and we look to the bottom of the deep sockets to see the glazed, withered eyes of starvation; and in the filthy rags of the cot there lies a bottle of brownish-looking gruel-like fluid, " the feeding," in a long-tubed dirty bottle; filthy to look at, stinking to smell, and poisonous to drink. We write strongly, but as we write we see the faces of many poor sufferers turned to us, too feeble to plead even with a cry; sufferers whose life has almost run its little span, but who earnestly plead that something may be done to arrest this vile traffic in human flesh. We have made many inquiries into these cases, and find that the great majority of babies given out "to be nursed" are not intended to live. There is one way, and one way only, of ending this merciless destruction of babies, that is, insist on an inquest on each nursed child that dies.—*London Medical Press.*

Treatment of Grave Epistaxis.—M. Verneuil read a communication at the Academy of Medicine on the treatment of certain forms of epistaxis by counter-irritation over the region of the liver. M. Verneuil began by stating that he had at first thought that the method was entirely his own, but from biographical research it turned out that he had been anticipated to a certain extent by Galen, who says that large cupping glasses applied to the hypochondria arrest nasal hemorrhage. In the first case related by M. Verneuil the epistaxis was probably symptomatic of cirrhosis of the liver. Quinine, ergotine, and digitalis had all been tried in vain. The hemorrhage continued to recur at intervals. The second patient had suffered from nasal hemorrhage, which seemed to have been caused by the shock of a kick from a horse. In this case plugging had failed. The third was the subject of chronic nephritis, with secondary affections of the heart and liver, and the cavity of the nose had been plugged without effect, both with ergotine and perchloride of iron. M. Verneuil's treatment, which was immediately and permanently efficacious, consisted of the application over the region of the liver of a large blister.—*London Lancet.*

Puncturing the Abdomen in Puerperal Cases.—Mrs. W., seen November 6, 1875, was confined to bed, in the seventh month of pregnancy, with vomiting, dropsy, and albuminous urine (nearly one half on testing). On October

5th she was prematurely confined, labor natural. Vomiting persisted after confinement, and a severe febrile state followed, with flatulent distension of the abdomen as a chief symptom. This increased during the next few days, and on the night of the 12th, the distress being so great, I punctured the bowel with a fine trocar. Flatus and some yellow fluid escaped. Relief was given, and the patient, after some weeks of illness, recovered, the albumen entirely disappearing. No inconvenience of any kind followed the operation, and the patient has since enjoyed good health. The distension returned after the operation, but was not so extreme, and the puncturing was not repeated.—*Stephen Nesfield, M. D., in London Lancet.*

Incompatibility of Potassium Iodide with Strychnia Sulphate.—At a late meeting of the Baltimore Academy of Medicine (Maryland Medical Journal), Dr. P. C. Williams reported a case of chronic myelitis, of syphilitic origin, in which he prescribed iodide of potash, bromide of potash, and sulphate of strychnia in the same proportion. The druggist sent the bottle to his office and said the incompatibility of the ingredients had caused a precipitate of the iodide of strychnia.

Myrrh as a Preventive of Infectious Maladies.—Dr. W. Femple recommends the keeping of a fragment of myrrh in the mouth during exposure in a dangerously infected locality, and felicitates himself on having observed this precaution in various epidemics. He considers myrrh as an excellent specific preventive in infectious maladies. The physicians of the East make this a constant practice in the case of infectious maladies.—*Journal de Méd. de Paris.*

Sterility.—From *data* furnished by over six thousand cases in a table prepared by Ansell, and from similar results in other tables, Dr. J. Matthews Duncan concludes that married women, delaying the commencement of fertility beyond six months, are already exhibiting a degree of relative sterility ; and that when a married woman remains until the end of the fourth year without conceiving, the probabilities are that she will prove absolutely sterile.

Medicine and Medicine-men.—The address of Dr. John Godfrey, delivered at the banquet of the Louisville Medical Society, will be issued in book form, and held on sale by John P. Morton & Co.

As a composition, it stands alone in medical literature, and entitles its learned and gifted author to a high place among the poets and wits of the land.

Prof. Vulpian, the distinguished pathologist, neurologist, teacher, and author, died in Paris, on the 18th ult. He was born in 1826. He took the degree of M. D. in 1854, and soon after was attached to the Museum of Natural History. In 1867 he was appointed Professor of Pathology to the Faculty of Medicine. Since that day few men have done more or better work in medicine.

Arsenical Eruptions.—Dr. P. A. Moroon (*La France Médicale*) has observed the following variety of cutaneous eruptions from the use of arsenic: Erythema, papules, urticaria, vesicles, pustules, ulceration, skin bronzing. In each case the discontinuance of the drug caused the disappearance of the rash.—*London Medical Press.*

No man, nor any body of men, is good enough or wise enough to dispense with the tonic of criticism.—*Huxley*.

SPECIAL NOTICES.

Medicated Soaps.—The wide-awake firm of Seabury & Johnson (Seabury Pharmacal Laboratories) New York, have added to their list of Laboratory products a full line of Medicated and Antiseptic Soaps of a high degree of excellence. Conspicuous in this addition are their *one* and *five* per cent Hydronaphthol Soaps, the former for the Toilet, the latter for Medicinal and Antiseptic purposes. These Soaps are prepared from the purest ingredients obtainable, highly scented, entirely neutral, containing no free alkali, acid, or impure fat. Dr. C. W. Allen, of New York, and other prominent skin specialists, recommend these Hydronaphthol Soaps very highly in the treatment of ulcers, eczema scabies, impetizo, pruritus, pityriasis capitis, alopecia, favus, &c., &c. Aside from their healing powers, these Soaps also impart their well-known powerful Antiseptic and Disinfectant properties to the waters in which they are used, and in this way free basins, bathtubs, cesspools, sinks, &c., &c., from all unpleasant odors and foul gases.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. III.
[NEW SERIES.]
LOUISVILLE, KY., JUNE 25, 1887.
NO. 13.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

REPORT ON GENITO-URINARY DISEASES.*

BY E. R. PALMER, M. D.

Professor of Physiology, Physical Diagnosis, and Diseases of the Chest, University of Louisville.

I purpose in as concise a manner as possible to set forth in this paper a few of the relatively new points that have engaged the attention of genito-urinary surgeons during the past twelve months, and at the same time to discuss some other matters pertaining to this field, that, while not altogether new, are yet *sub judice*. The topics I shall present are some modern views regarding syphilis, with especial reference to the relationship of chancre and chancroid; transmission, including heredity, and the marriage question, and a few new phases in treatment; the modern views regarding urethritis, or the application here of the germ theory, including a description of the gonococcus of Neisser; the difference between specific and non-specific urethritis; and antiseptic treatment, with particular reference to irrigation and the retro-injection system of Holbrook Curtis; also a point or two in the management of gleet, including the treatment of stricture of the urethra and gonorrheal cystitis, with such other relevant matters as may incidentally present themselves.

Dr. F. B. Greenough, of Boston, in a paper recently read before the American Association of Genito-urinary Surgeons, presents some interesting statistics with reference to the relative frequency of chancre and chancroid. He states that in a total of 1,593 cases treated at the Boston Dispensary, 391 were chancroids, 219 true chancres, 931 doubtful, and 52 herpes progenitalis, making the ratio of chancroid to other lesions as 1 to 3. Out of 100 cases in private practice 10 were chancroids, 63 true chancres, 13 doubtful, and 14 herpes progenitalis, being a ratio of 1 chancroid in 10.

In the March number (1887) of the Journal of Cutaneous and Genito-urinary Diseases, Dr. F. R. Sturgis, of New York, contributes a valuable paper, re asserting the postulate of Bumstead in 1876, namely, that there is no such thing as a specific chancroidal virus.

Both Dr. Greenough and Dr. Sturgis attribute the marked diminution in the relative number of chancroids to the decrease of the practice, once so general, of cauterizing all doubtful sores—that is, all except typical Hunterian chancres. There was some difference of opinion among the members present as to the advisability of cauterizing venereal sores, while all agreed that the chancroid was certainly markedly less frequent now than during former years. An important feature in the statistics of Dr. Greenough was the proportionately large number of sores that a man of his great experience and acknowledged ability was forced to class as "doubtful." It will be well for the profession if we recognize, more than we are wont to do, the frequency of constitutional infection accompanying other than typical chancres, so called, and also for us to remember the frequency of "doubtful sores" in giving a prognosis to patients, rather than waiting to fall back later upon the "mixed chancre" theory as an explanation of the development of general syphilis subsequent to a simple or soft sore. No more important point in making an opinion is at the command of the doctor than the question of incubation. It is here that he should show greatest persistence and most consummate skill in developing the history of his case. This done, he may safely pronounce any doubtful sore that has a plain history of incubation a chancre. I have recently seen severe secondary manifestations follow multiple scabbing sores devoid of a single feature of the typical chancre except a history of three weeks' incubation. The treatment of the local lesion presents several somewhat new points of interest. Not a few of genito-urinary men follow Otis in believing that a marked amelioration of subsequent manifestations is apt to follow enucleation of the initial lesion. Iodoform and its congener iodol are rapidly losing caste, and I am inclined to think deservedly so. Where cauterization is deemed advisable cocaine, a four-per-cent solution, may be applied to the sore and surroundings, with good effect, prior to the nitric acid or hot iron. Salicylic acid to chancroids is quite popular with some, but the majority prefer simply an antiseptic dressing, cleanliness, and separation of surfaces. Lycopodium, bismuth, diluted Labarraques' solution, weak bichloride of mercury solutions, calomel, and oxide of zinc are among the favorites most in use.

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*Read at June meeting of Kentucky State Medical Society.

Dr. Arthur, U. S. N. (Medical Record, December 18, 1886), has contribued a lengthy paper based upon replies of some two hundred army and navy surgeons to queries regarding the frequency of secondary syphilitic contagion. The result of his investigation is, to say the least, remarkable to a high degree. From observations of 33,000 men by these surgeons, during a period of ten years, but 41 cases of infection by secondary sores are reported, and of these, for reasons satisfactory to the compiler, 29 are excluded as not coming within the strict requirements of contagion from secondary lesions, while in the remaining 12, where kissing is cited as a probable means of contaminations, Dr. Arthur suggests that "direct contact of the lips with a vulvar chancre" might possibly explain the sore upon the mouth.

One must question the accuracy of observation in the making up of such statistics when he recalls the positive and ofttimes terribly sad infections that have come in his own professional experience from the contact of lips and tongue bearing secondary mucous patches with the untainted mouths of innocence and virtue, and that too in the higher walks of civil life. I question, indeed, if the soldier and sailor, isolated as they are throughout most of their service from the opposite sex, contracting disease in a bawdy-house debauch, and then perchance for months embracing nothing more animated than a glistening musket or slippery mast, are proper persons among whom to make statistics bearing upon this in some respects gravest of questions in syphilography. It is indeed this unfortuitous accident, whose recognized frequency has led to the discontinuance of the term "venereal disease" as formerly applied to syphilis.

The microbe of syphilis is as yet an undiscovered quantity. Analogy justifies a belief in its existence as a causative agent, but science demands demonstration. Until this shall have been done the doubtful evidence of clinical experience alone can answer the questions surrounding the subject of transmission. Of these questions the two most discussed and most dividing are, "Can the father beget syphilitic children without first syphilizing the mother?" and "the duration of the syphilogenic capacity in relation to marriage." In the first the preponderance of belief seems to be with Fournier, that he can, though not a small number of eminent authorities lean to the dictum of Otis, that he can not. The duration of the power in one diseased to transmit syphilis is of prime importance, affecting, indeed shaping as it necessarily must, the later lives of a large number of our young men.

In a recent discussion of the subject in the County Medical Society of New York, Dr. P. A. Morrow; an eminent syphilographer of that city, but a Kentuckian by birth, in the opening paper sums up as follows: "There is nothing constant in contagion, and nothing certain in heredity; . . . the chronological completion of the secondary stage does not mark the disappearance of the virulent principle; . . . that while *in the immense majority* of cases the contagious activity of syphilis and its susceptibility of hereditary transmission *ceased after three or four years*, there were well-authenticated cases in which it manifested itself as far removed as five or six years, and even later." . . . And finally, "to fix the date at which a syphilitic man could marry with safety at three or four years, with or without treatment, and irrespective of the existence of specific lesions, was unwarranted by science or the teachings of experience." [Italics are mine.] I quote Dr. Morrow thus at length because of his representing the modern status of that limited school, once the whole enlightened medical world, which held that a person once a syphilitic remained always a possible focus of contagion.

Dr. Fessenden Otis, whose authority in matters genito-urinary is recognized on both sides of the waters, said "that the period at the end of which marriage could take place with safety had, after thorough treatment, been fixed by the profession throughout the world as three or four years; . . . that in view of the enormous mass of evidence presented, and of the general experience of authorities wherever syphilis had been communicated at a period later than three or four years, it would be shown in such cases that the true source of the disease was in a lesion less than three years old."

Dr. R. W. Taylor, the successor of Bumstead, believed that, "if taken early and treated thoroughly, the contagiousness in ninety-nine out of a hundred cases could be destroyed at the end of two or two and a half years."

These are indeed most comforting advances in our knowledge of syphilis, and are sure to carry joy to many a young man whose future has seemed by one unfortunate accident to be forever blighted.

But little that is new and of value can be said under the subject of general treatment, for the excellent reason that in mercury and the iodides intelligently used, and a careful supervision of the moral and physical states of our patients, we are already well masters of the field. Under the influence of such improvements in pharmacy as the introduction of the oleates, inunction may be relied upon more than formerly, and has therefore come much more generally into use. Lanoline as a base for purposes of inunction has not fulfilled expectation, and is much less used than was the case a year or more ago. The administration of mercury by hypodermic medication is exceedingly popular just at present in Germany. It has not as yet come into general use in this country. Various formulæ have been recommended; the most common consisting of either of the chlorides combined with common salt, and given in solution or suspended with mucilage or vaseline. At first such injections were made into the subcutaneous cellular tissue. Pain and the frequency of extensive abscess formation has led to the selection of the muscular tissue instead, by which it is claimed that the danger of abscess at least is overcome. The sites usually chosen are the bellies of the glutei or vasti muscles. By repeated injections of a grain to three grains each time, some twenty-four grains of calomel may be thus deposited and serve as a store of medicine that shall, by slow solution, be doled out over a period of several months to the economy, thus serving, it is said, to more effectually eradicate the disease than is usually done by the older methods. Confirmatory evidence of the superiority of this plan of treatment is yet to be accumulated. The tannated protoxid of mercury which Lustgarten, chief of Kaposi's clinic, claims to possess all of the virtues and none of the vices of quicksilver, has not given marked satisfaction at my hands, and will, I think, hardly supplant the protiodid and other of the older favorite preparations of this essential remedy.

In the matter of urethritis the liveliest interest is being manifested all along the line. It is about twenty years since Van Buren declared that more men die of gonorrhea than of syphilis, and a much longer period has elapsed since Ricord, avowing his belief in purgatory, expressed the pleasant anticipation that in his sojourn there troops of men would continually pass him by and reproachfully taunt him with the cry, "You could not cure my gleet." In the light of modern science and modern art, Van Buren's saying bids fair to stand refuted, and future Ricords by one sublime transition be wafted straight to paradise.

In November, 1879, Neisser, of Breslau, announced his discovery of the specific microbe of gonorrhea, which he named the *gonococcus*. While continental bacteriologists in numbers speedily published reports of confirmatory observations, it is only until quite recently that much work has been done in this direction in this country. For the past three years Dr. C. W. Allen and Dr. Wendt, of New York City, have conducted a series of elaborate microscopical examinations of morbid urethral discharges with a view to "placing" the clap microbe; while later, as I have had the pleasure of seeing, Drs. George E. Brewer and Louis F. Kiefer, of the Roosevelt Dispensary, have applied the microscope clinically in the examination of all cases of urethritis coming under their observation. The changes in treatment that must follow, should the relationship of cause and effect be established between this microbe and contagious urethritis, must necessarily be radical in the extreme. I have therefore deemed it well to extract from two papers, one by Dr. Allen on the gonococcus, and one by Dr. Brewer on modern and antiseptic treatment, the *germ* of this subject, in the hope that the matter will not tire, but rather much interest you. Repeated examinations of gonorrheal pus show "the uniform presence of an ovoid microbe in the protoplasm of the pus cell constricted through one diameter, or already subdivided." The presence of apparently similar cocci in the scrapings of the healthy urethra led to the development by Roux of his now-accepted staining method. Of this Dr. Allen speaks as follows:

"In the following staining method, which was proposed by Dr. Gabriel Roux* at a meeting of the Paris *Académie des Sciences*, I think we have at last found a means of confirmation which the proposer is justified in regarding as 'exact.' His method is based on the fact that Gram's staining process is not applicable to gonorrheal pus. Gram's method, as is well-known, consists in coloring the dried specimen with methyl blue or gentian violet, then fixing the color on the micro-organisms with iodo-iodide of potassium liquid, next decolorizing with absolute alcohol.

"After washing with distilled water, Roux then recolors with eosin. This procedure, which is applicable to other pus and secretions as before said, is not applicable to the pus of gonorrhea, giving constantly negative results. Gram's liquid does not fix the color on the gonococcus; and when subjected to the action of alcohol the gonococci are decolorized at the same time with the anatomical elements, and are scarcely recognizable under the microscope, while ordinary micrococci persist. Roux says it is, therefore, always possible in doubtful cases to determine the true nature of the cocci present by first staining with gentian violet, and after examining to treat with Gram's liquid and then with alcohol. If in a given specimen there is an absolute disappearance of the cocci which have been previously observed, they are surely those of Neisser. If, on the contrary, they persist and retain their violet color, there is reason to doubt the blennorrhagic nature of the affection from which the pus was derived. This method we have been able to confirm by repeated examinations of gonorrheal pus from typical cases, and have found it of great value in those of doubtful nature. We have examined pus containing a great variety of forms of bacteria, and find that, while the double-coloration method brings out all other micro-organisms more beautifully than any other process we have employed, decolorization removes the staining from the gonococci and causes them to disappear, while other micro-organisms are not decolorized. Here, then, we have a method which, when carefully carried out, appears never to fail and has the great advantage of simplicity. The general practitioner can without loss of time examine a specimen for gonococci, and, having found them, confirm his observation at once. I will briefly go over the process of rapid examination as practiced by Dr. Wendt and myself. A drop of pus is spread into a thin layer by pressing between two glass slides, and allowed to dry in the air. A drop of a solution of methyl blue in aniline-water is now placed upon it for a moment and washed off with a stream from a wash-bottle; a few drops of Gram's iodo-iodide liquid is then poured on and allowed to remain for several minutes. This fixes the color on micro-organisms in general. Gram's liquid is now washed off, and while the specimen is still wet a cover glass is placed upon it and it is examined with an oil immersion lens. If micro-organisms resembling the gonococcus are found, we proceed to test them by decolorization. The cover glass is removed and the specimen treated with absolute alcohol until the color is as completely removed as possible. The cover glass is replaced and the specimen again examined, when all gonococci will be found to have disappeared. All other organisms, however, which may have been present will be distinctly visible. If desirable, the pus cells may be brought out again by applying a solution of eosin. By this method we have been able to exclude all cases which would have been of necessity left doubtful without some confirming test.

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* *Le Concours Medical*, Nov. 13, 1886.

"In all cases of undoubted gonorrhea gonococci have been found and confirmed by this test whenever applied.

"Groups of cocci from pus which was not gonorrheal, although resembling the gonococci, have been shown by their retention of staining to differ from them."

While pathologists have long recognized as distinct a true and a false blenorrhea, we now possess, for the first time, in this discovery a certain and ready means of settling a question, which for obvious reasons must often present to the practitioner as indeed a most serious one.

Aside from this comes the question of the effect of Neisser's demonstration upon treatment and result. I feel justified in making the statement that already results in treatment accumulate that practically establish the asserted value of the discovery. As yet, my personal experience is limited to the daily application of the fullest phrase of modern treatment in practice over a period of only about ten or twelve weeks. To say that my convictions in the matter approach enthusiasm is not stating it too strongly. The best exposition of the subject is to be found in the May number of the Journal of Cutaneous and Genito-urinary Diseases by Dr. George E. Brewer, assistant surgeon to the out-department of Roosevelt Hospital.

Modern treatment of gonorrhea consists in injections of large quantities of properly medicated and tempered fluids either from behind (retro-injection) with the Holbrook-Curtis' apparatus, or by irrigation through the double nozzle irrigator by Kiefer. By the former plan some sixty ounces of hot medicated water are passed twice daily through the diseased urethra from behind, by means of a bulbous, multiple-perforated, Nelaton tube and a form of fountain syringe. In the latter plan a wall irrigator and Dr. Kiefer's double-current nozzle are used. I shall not consume your valuable time by entering into the full details of Dr. Brewer's cogent paper. No one, who will fol- the exact idea of the plan of treatment therein evolved, can fail but be impressed with its great advantage over the old pop-gun plan still in general vogue. In the early or infectious stages the germicides are used. For the chronic gleety manifestations, astringents. Of the former bichloride of mercury is, of course, first choice. Right here a valuable point of contrast between the old and the new plans of treatment crops out. Bichloride of mercury has long been used by ordinary injection, the favorite formula being one grain to eight ounces of water. Results were varying, one of the most certain however being intense pain. Now one grain to eight ounces is about one part to four thousand, and, weak as this was held to be under the old *regimé*, it is to-day placed in contrast with the successful use of this drug in solutions varying, according to sensitiveness of urethra, from 1 to 10,000 (the strongest) to 1 to 60,000; quantity, and long-continued, thorough, general application being the secret of success, added to the demonstrated fact that solutions of the bichloride as weak as 1 to 100,000 possess decided sterilizing properties when thoroughly applied. In addition to the sublimate I am in the habit of adding, to the extent of one half the total amount of the fluid, boric acid in saturated solution. I have seen quite recently two cases of genuine abortion of true clap by irrigation with a 1 to 10,000 bichloride solution semi-saturated with boric acid, applied as hot as could be borne by retro-injection—quite severe pain for an hour afterward and an absence of discharge on the following day being the result. In addition to these two agents, permanganate of potash, salicylic acid, carbolic acid, chloral and nitrate of silver have been used. The two latest candidates for favor on a germicide basis are hydronapthol and the sulphate of thallium. The latter is ardently introduced by Goll, who recommends a one-and-a-half to two-per-cent solution. Peroxide of hydrogen, while it destroys the pus cells, leaves the cocci unaltered. Sulphate of zinc or tannin are the astringents ordinarily used by retro-injection in the stage of decline.

I should not forget to state that cubebs, copaiba, and oil of sandal wood still hold a firm place as internal agents, but that they are given now because of the germicide properties that develop during their passage through the economy.

It has been asserted again and again by leading authorities, that a clap that got well under six weeks of treatment was not genuine, while, despite the most faithful and painstaking treatment by the old plan, months have in many cases lapsed without any cessation of the discharge. Under modern antiseptic treatment with copious antiseptic injections, Dr. Brewer reports a large number of cases, where gonococci were abundantly present, that have been completely cured in less than two weeks' time. A question that will present itself to the minds of many of you is that of the danger of complications arising from this method of retro injection. In this matter Dr. Brewer states that "in forty-six cases representing more than three hundred applications of hot water no inflammatory complication has occurred."

His interesting and valuable paper sums up as follows:

"1. That in uncomplicated cases of acute gonorrheal urethritis, treated by prolonged and frequent irrigation with bichloride of mercury, recovery may be expected within two weeks; that this period may be considerably shortened by the early inauguration of treatment, by absolute rest, and by the avoidance of stimulants; that it may be indefinitely prolonged by irregularity in treatment, by inordinate physical exertion, and by indulgence in alcoholic and venereal excesses.

"2. That the retro-injection of a hot solution of bichloride possesses all the advantages of the former procedure, and in addition causes a more rapid subsidence of the inflammatory symptoms, a greater feeling of comfort to the patient, and is attended with less annoyance and trouble.

"3. That in cases of acute non-specific urethritis, the favorable influence of each of these methods is strikingly apparent.

"4. That in cases of chronic purulent urethritis no agent produces such rapid and permanent improvement as irrigation, especially when combined with astringents and heat.

"5. That the percentage of complications occurring in cases treated by these methods is far below that observed when the ordinary methods are employed."

In conclusion of this subject, I may state that gonnococci have been found in pyo-salpinx, the secretion of gonorrheal arthritis and gleety discharges of many years' duration. In the latter form of trouble Neisser has found the proportion about equally divided between the presence and absence of these germs. In all cases where they are present the discharge is held to be contagious. Gleet, the *bête nôir*, not only of Ricord but of thousands of doctors since his time, remains to be considered. Standard *brochures* abound, giving the pathology and approved management of this ofttimes intractable sequel. I desire to call your attention to but a few points in this connection.

At the meeting of the Genito-urinary Society last month, already referred to, the President, Dr. E. L. Keyes, read a paper advocating the injection of a few drops of a strong solution of nitrate of silver into the deep urethra in gleet and gonorrheal cystitis. He claims for such injection, by an ingenious instrument of his own devising, not only the cure in a large majority of cases, but the absence of subsequent epididymitis or other ill effects from such treatment. A full report of his paper may be found in the Record for May 28th. The deep-seated use of nitrate of silver is as old as Lallemand. It was rather the manner of application with Dr. Keyes' new syringe that was novel.

The frequency of stricture of the urethra as a result of urethritis, and its direct causative relationship to gleet and impotence, needs no elaboration at my hands. These are already well-established facts. So far also as treatment is concerned, whether it be palliative by dilatation or curative by urethrotomy, I shall also be exceedingly brief.

Let me reiterate what has been before stated, that strictures need not be of small caliber to exert seriously hurtful influences calling for instrumental interference; and further in this connection, let me also state that the ordinary conical steel sounds, in so general use for purposes of diagnosis and dilatation, are in nearly all cases worse than useless for the former purpose, as by their use strictures, causing trouble and readily discernible by the use of proper instruments, often wholly escape detection. The use of a properly graded set of olive tipped wires (*bougie-á-brulé*) or Otis' urethra-meter is essential to a diagnosis. Of the various instruments for internal division, Wyeth's improvement of Otis' dilating urethrotome, made by Tiemann & Co., is the best. In it the knife is moved by a thumb screw, enabling the operator to "whittle his way" through the stricture and avoid wounding the healthy tissues.

The two prime dangers in the operation of internal urethrotomy are urethral fever and hemorrhage, presuming, of course, that the operator has assured himself of the soundness of his patient's kidneys before operating. In a recent conversation with an eminent surgeon of one of the New York hospitals, he remarked in response to a statement that I made, that "the millenium in urethral surgery would be reached whenever the means was discovered of sterilizing the urine by internal medication." The ground for this strong statement was the fact that urethral fever, that dread of operators upon the urethra, is due to infiltration of the tissues of the body by a germ-laden urine.

About the only attempt that has, up to quite recently, been made to prevent urethral fever from following urethrotomies and kindred operations, has been the internal exhibition, prior to the operation, of quinine and the subsequent use of antiseptic injections. My remark that called forth this surgeon's statement was to the effect that we can, by the free administration of boracic acid for twenty-four hours before, and for some days subsequent to the operation, render the urine absolutely sterile, and thus, without any quinine whatever, escape all danger of urethral fever. At that time my experience with this agent thus given was hardly sufficient to warrant a positive assertion. Something less than a year ago I ordered, in a case characterized by purulent and fermenting urine, the exhibition of boracic acid in ten-grain doses. The effect for good was so immediate and striking that I determined to use the remedy instead of quinine in my next urethrotomy, having several times previously encountered severe fever in this operation, despite the free exhibition of quinine.

In some forty subsequent urethrotomies, several for strictures of small caliber, a number under adverse circumstances, I have had but one case of urethral fever. In that case, operated upon in the practice of a neighbor physician, last month, for stricture of small caliber in a negro, the attendant, by some misunderstanding, omitted the boracic acid after the first subsequent day. A violent chill, with temperature of 105° rapidly following, occurred on the third day. The bladder and urethra were at once washed out with boric acid, and its internal exhibition in twenty grain doses renewed. Happily the patient recovered, having served, if but in a negative way, to demonstrate the value of boric acid as an internal antiseptic. I usually employ ten grains in compressed tablets every three hours, though as high as thirty grains every three or four hours may be given without any irritating or otherwise injurious action upon the alimentary canal. I should, of course, mention that full antiseptic precautions are always employed as regards the instruments used, and that in most cases I also wash out for several days the bladder and urethra with an ordinary hot boric and bichloride solution—an admirable means, by the way, for arrest of hemorrhage, in addition to those already laid down in works on the treatment of stricture. The misgivings with which I formerly performed this wonderfully salutary operation are wholly gone. Hemorrhage, the other danger, is growing more and more rare under improvements in instruments and operative procedure, and when it does occur is ordinarily easy of control. Cocaine, of course, has fully demonstrated its value in penile surgery. The sterilizing bath which I use for my instruments is a saturated solution of hydronapthol. It is much superior for that purpose to carbolic acid.

721 W. Jefferson Street, LOUISVILLE.

EXTERNAL URETHROTOMY WITH RETROGRADE CATHETERIZATION.*

BY ARCH. DIXON, M. D.

On January 4, 1887, James Sullivan, a conductor on the Ohio Valley Railroad, while standing in a chair attempting to reach some article in the top of the baggage car, was thrown, by a sudden lurch of the train, off his balance, and falling astride the back of a chair produced an extensive and complete laceration of the membranous portion of the urethra. Pain and shock were so great that he immediately lost consciousness. This condition remained for some time, and was not entirely relieved until after the arrival of the train at DeKoven at 11:20, the accident having occurred at 11 P. M. At DeKoven a physician was called and found the injured man suffering intense pain, with considerable hemorrhage from the meatus urinarius. Morphia was given and cold applications made to the perineum, but without the effect of arresting the bleeding, which continued through the night, though in diminished quantity. At daylight on the morning of the 5th, it was discovered that there was retention, the patient being unable to void his urine, the effort producing great pain. At this juncture a telegram was sent to me to come at once. Upon my arrival, at 10 A.M., the condition of things was unchanged, blood was still oozing from the meatus, and pain and great tenesmus were present. After a brief consultation with the attending physician, a *bougie-a-brule* was passed into the urethra, and the location of the rupture ascertained to be about the beginning of the bulb and into the membranous portion. An attempt was then made to empty the bladder by catheter, without success. Having no sound with me, a No. 12 catheter was inserted into the urethra as far down as the laceration, and secured there. This controlled the hemorrhage. A hypodermic of morphine and atropia was given, and the patient at once removed to Henderson, where a second attempt was made to enter the bladder by catheter, instruments of various sizes being used, both metal and rubber. Notwithstanding the patient was chloroformed the attempt was a failure.

Dr. A. R. Jenkins had been called in consultation, and it was decided to puncture above the pubis. A medium size curved trocar was passed into the bladder, and nearly three pints of urine withdrawn. The canula was secured by adhesive strips and left in the bladder, with a piece of small rubber tubing attached to it, and extending into a vessel under the bed containing carbolized water. The patient passed a fairly good night under the influence of morphia. On the morning of the 6th, there having been no discharge *per urethram*, save a bloody serous ooze, catheterization was again attempted under ether, with the same result which had attended the two previous trials. External urethrotomy was determined upon; a sound was carried up to the point of obstruction and an incision made through the median line, laying bare the end of the sound. A careful search, occupying much time, was made for the posterior end of the divided urethra, without success. I decided at once to make *retrograde catheterization* by enlarging the supra-pubic puncture and passing a catheter through the urethro-vesical orifice to the posterior end of the laceration. The rectum was ballooned and the supra-pubic puncture enlarged. After several ineffectual efforts to find the orifice with a catheter, a sound was substituted, which was without difficulty passed and made to protrude in the perineal wound; the incision was then lengthened, and, guided by the sound, a No. 12 Nelaton catheter was introduced into the bladder and left there. The urine being acid, the supra-pubic opening was closed by several fine catgut sutures through the fibrous coat of the bladder, the external wound being closed by carbolized silk. Iodoform was dusted over all, and an ordinary dressing of sublimate gauze applied. Antiseptic precautions were maintained throughout. The patient made an uninterrupted recovery, and in four weeks had returned to his duties as conductor, with directions to pass a No. 12 catheter every other day.

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*Read at June meeting of Kentucky State Medical Society.

Retrograde catheterization was practiced for the first time in 1757, by Verguin, a surgeon of Toulouse, who passed a catheter into the urethra through a pre-existent fistula of the bladder, consecutive to supra-pubic puncture. Since which time a number of surgeons have had recourse to this procedure, and Sédillot formerly expressed the opinion, "that, in the absence of a pre-existent fistula, if, in the course of an external urethrotomy undertaken for an impassable stricture, it were found impossible to discover the posterior end, the surgeon would be justified in doing supra-pubic cystotomy at once, in order to practice retrograde catheterization."

Duplay, in his article on Injuries and Diseases of the Urethra, in the International Encyclopedia of Surgery, mentions a very complicated case in which, having failed the first time in the search for the posterior end of the urethra, decided to have recourse to this extreme measure. He opened the bladder above the pubis, and succeeded in introducing, by the urethro-vesical orifice, a sound which, being made to protrude in the perineal wound, enabled him to re-establish the continuity of the canal. The operation was followed by complete success.

I deem it unnecessary to tax your patience by going into the mechanism of rupture of the urethra, which has long engaged the attention of authors, who have expressed in regard to this subject contradictory opinions. The theory advanced by Velpeau and Franc was long accepted without contest. In 1876 Cras announced his theory, and still later that of Poncet, of Lyons, and Ollier was given to the world. Last of all, Terrillon has arrived at conclusions at least satisfactory to himself, but as yet the matter remains *sub judice*. The recognition of the location and extent of a rupture is perhaps more important as regards treatment than is that of its mechanism. It makes a vast difference, both in regard to the introduction of a catheter and to the search for the posterior end of the torn urethra, whether the rupture be complete or incomplete. In the membranous portion, according to Terrillon, the rupture is most frequently total, on account of the thinness of the walls and the feeble resistance of the surrounding muscles. It is only in exceptional cases that the mucous membrane is simply frayed or split. Where there is total rupture the search for the posterior segment is especially difficult, for the canal is divided transversely. The two ends, one posterior the other anterior, are retracted and separated by a distance more or less great, and sometimes, Duplay says, they are even placed laterally in regard to one another.

In such cases the difficulty to be met with in the introduction of a catheter or in the the search for the posterior end can be readily appreciated. In the case under consideration the rupture was *complete*, the cavity between the ruptured ends was filled with clots, the search for the posterior end was long and carefully made. The bladder being empty by reason of the canula above the pubis, pressure could not be made upon it to force the urine down through the prostatic urethra, and knowing the danger from extravasation and infiltration, I felt justified in resorting to retrograde catheterization.

In conclusion, I would urge the necessity of early operative procedure in almost every case of traumatic rupture of the urethra, not excepting even those cases in which catheterization is possible, and in which the rupture is only interstitial. In interstitial rupture the sanguineous tumor resulting from the contusion may be absorbed spontaneously; but quite often it becomes inflamed and suppurates, and gives rise to an abscess which opens either into the urethra or externally, or by both these ways at once. In such cases external urethrotomy should be done as a prophylactic.

In rupture of the second degree, which is constituted by solution of continuity of the mucous membrane and of the submucous tissue, if the rupture be very limited, the case may proceed as above, and resolution may take place without mishap. But if the wound of the mucous membrane be at all extensive, at each micturition a small quantity of urine penetrates the subjacent lesion, inflammation and suppuration follow, the tissues are rapidly destroyed and the pus invades the perineum. In complete rupture the secondary lesions always assume an extreme gravity. After an absolute but temporary retention, sometimes the urine flows in abundance, the patient urinates, so to speak, into his cellular tissue, and there results an extensive infiltration of urine with all its consequences. Sometimes the bladder allows only a small quantity of urine to escape, this penetrates the bloody cavity between the two edges and a urinary abscess follows. In either one case or the other the skin sloughs at one or more points, and the result is the formation of a variable number of fistulæ, which give exit at first to a mixture of urine and pus, and afterward to urine alone. The anterior part of the divided urethra is constricted more and more by the contraction of the peri-urethral tissues, and in some cases even its complete obliteration has been noted; the intermediate space resulting from the separation of the two sections of the canal shrinks gradually and becomes organized into fibrous tissue.

The ultimate consequence common to all ruptures of the urethra, to whatever variety they may belong, is stricture, and we all know the difficulty to be met in the attempt to radically cure such strictures. I believe that an early resort to external urethrotomy, even in cases which present only contusions, would greatly lessen the number of cases of contracted urethras or so-called traumatic strictures.

HENDERSON, KY.

THE State of Ohio claims to have sixteen institutions licensed to confer the degere of M.D.

Societies.

AMERICAN MEDICAL ASSOCIATION.

Thirty-eighth Annual Session.

FIRST DAY—WEDNESDAY, JUNE, 8th.

The thirty-eighth annual session of the American Medical Association was called to order at 11:05 A.M., in Central Music Hall, Chicago, by Dr. Chas. Gilman Smith, the chairman of the Committee of Arrangements, who, after prayer by the Rev. S. J. McPherson, made a few timely remarks. Mayor Roche delivered the address of welcome.

Dr. Smith then introduced Dr. Gregory, President of the Association, who delivered his inaugural address. He said that force and matter make up the universe; that force implies antagonism; that antagonism perpetuates motion; that a living cell is the embodiment of nature; that cell-antagonism is life, and that a model organism in equilibrium is health. The comprehensive title of his paper was "Cell-Antagonism," which forms the foundation of symptomatology and pathology, and, conjoined with the cell changes constituting the basis of pathological anatomy, embraces at once the universe of life, disease being but one of the multitudinous phases of life.

Cell antagonism constitutes the essential of pathology. Inflammation, the keystone of medical science, is only to be explained upon the theory of cell antagonism—a struggle between irritant bodies and white blood cells. Cells live upon themselves, by themselves, and for the whole body. The giant cells are formed by uniting of the budding processes from the ameboid mass of protoplasm. These giant masses of protoplasm appear in lupus and tubercle; in their substance the bacillus is found. With the observations before us concerning cell antagonism, inflammation presents a new aspect.

He then outlined the view that there is a struggle between leucocytes and bacteria, and that when the microbes prevail suppuration takes place. From this could be seen the close relation between Pasteur's work of preventive inoculation and Lister's equally important work in devising the methods by which the microbes can be rendered harmless.

Some time was devoted to the consideration of the question whether or not a cell can enter upon a life of independence, and from this he passed to Cohnheim's theory of the etiology of tumors, namely, persistence of germinal rudiments. Emancipation of cells seems to be almost out of the question.

He referred in fitting words to the death of W. O. Baldwin, ex-President of the Association. The address closed with a reference to the coming International Medical Congress, the success of which is assured. He urged the Association to welcome all to the great gathering.

The address was referred to the Committee on Publication, and a vote of thanks given to the President.

Dr. A. Nelson Bell, of New York, by permission, presented the Report of the Committee on Medical and Sanitary Service on board Immigration Vessels. The paper discussed the two sections of the law referring to immigration to the United States bearing upon the report. The purpose for which the committee was appointed had not yet been attained—the treatment of emigrants while still on shipboard, from a medical stand point, so as to prevent the spread of infectious or contagious diseases. It contained a number of recommendations for the proper treatment of passengers *en route* to the United States, whether they be suffering from illness, injury, or insanity. The report was adopted.

Dr. Deering J. Roberts, of Tennessee, offered a series of lengthy resolutions to meet an unwarranted, uncalled-for, and unjust attack upon the regular medical profession of the United States and its representatives here assembled, in the morning issue of the Chicago Times.

On motion of Dr. Eugene Grissom, of North Carolina, the resolutions were laid upon the table.

Dr. William Brodie, of Detroit, moved that the amendment (of which notice was given at the last meeting) creating a new section on Dermatology and Syphilography be adopted. Carried.

Dr. J. McF. Gaston, of Atlanta, chairman of the Committee to Memorialize Congress with reference to inoculation for yellow fever, presented the report, which was referred to the Section on State Medicine.

The Association adjourned to meet Wednesday morning at 10 o'clock.

SECOND DAY—WEDNESDAY, JUNE 8th.

The Association was called to order at 10 A. M., President Gregory in the chair.

The Board of Trustees for Publishing the Journal presented their report for the year ending March 31, 1887. The report of Dr. N. S. Davis, the editor of the Journal, showed that the weekly edition had been 4,387 copies, of which 3,478 have been sent to members of the Association, and 909 to regular subscribers and exchanges. This shows a net increase in the membership of 104, and in total weekly circulation of 116. There have been 4,800 copies of the Journal printed each week.

The receipts at the office of publication were: Moneys received from subscribers, advertisers, reprints, and extra Journals have been $7,580.63, of which $2,494.09 was from subscribers, $751.35 from reprints, and $4,335.19 from advertisements. This makes a net increase of $2,250.17 in receipts over the previous year. The cost of publication has been $13,162.01, of which $751.35 was for reprints, making the cost of the publication of the Journal $12,410.66, an increase of $1,426.99 over the preceding year. The cash value of the Association printing office, after deducting fifteen per cent for wear, $921.34, to which $137.22 worth of type, etc., have been added during the year. The actual additions to the Association during the year were 506, and new subscribers 18, but 493 members have been dropped from the lists for various causes.

Dr. Wm. G. Eggleston has continued to fill the position of assistant in the editorial chair.

Only $2,758.95 have been expended during the year for editorial work.

The Journal will be increased four pages during the coming year, and Dr. Davis will continue in the editorial chair.

Dr. Deering J. Roberts, of Tennessee, rose to a question of privilege, and withdrew the resolutions of censure introduced by him on yesterday. His reason for this action was based on the fact that the Chicago Times had apologized for the article that had called forth the resolutions.

Dr. N. S. Davis read the report of the special Committee upon Changes in the Plan of Organization and By-laws of the Association, appointed in accordance with the resolution adopted by the Association at the last annual meeting.

In this report were reviewed the geographical and medical extent of our country, the plan of organization and operation of the British Medical Association, the present relation which exists between the American Medical Association and the State and county medical societies and the national and local organizations. The committee reached the conclusion, after a most careful study of the development of medical organizations at home and abroad, that it could not recommend any radical changes in the existing plan of organization of this Association.

There were, however, certain defects in the present plan and its by-laws that could be remedied with advantage, and the committee recommended that the method of admission to membership by application be so amended as to include such members of the State, county, and district medical societies entitled to representation in this body as shall make application in writing to the Treasurer, and accompany said application with a certificate of good standing, signed by the president and secretary of the society of which they are members, together with the amount of the fee for membership, five dollars. Such members shall have their names entered upon the roll, and be entitled to all the privileges of permanent members, and shall retain their membership upon the same terms as though they had obtained permanent membership by serving as delegates.

In the fifth section of the Constitution the committee recommended that paragraphs one and three be stricken out, and that in place of the first paragraph there be substituted the following important provision: The general Committee on Council shall be composed of two members from State and territorial medical societies represented by delegates to this Association, and from the medical departments of the Army, Navy, and Marine Hospital Service. They shall be chosen by the members registering and present at the annual meeting, these organizations acting separately. There were further provisions making the term of office two years. This general committee shall meet on the day preceding that fixed for the meeting of the Association, and as often during that week as may be necessary; and for the purpose of nominating, on the third day of each annual meeting, all the officers, none of whom shall be members of their own body; the Judicial Council, the Board of Trustees for the Journal, etc., and all for election by the Association. This committee shall also recommend a place and time for the annual meeting, consider and report on all subjects which may be referred to it by the Association, and particularly all propositions introduced which involve appropriations of money. These recommendations, the chairman said, simply put in due form and proper place the regulations that had actually been in operation for the past four years under resolutions adopted at the annual meetings in 1882 and 1883.

As to the By-laws, the committee recommended that they be so amended that the chairmen of sections shall be required to prepare addresses on the recent advancement in their departments, to be read before the sections on the first day of the annual meetings, such addresses not to occupy more than forty minutes in their delivery. This method is now practiced in the British Medical Association. An additional by-law was recommended providing that three members of the profession shall be elected by the Association to deliver addresses in the general sessions of the Association at the next ensuing annual meeting, and that each address shall not occupy more than one hour in its delivery.

The report did not give rise to discussion other than that relating to the question whether or not the proposed amendments could be adopted at this meeting, or must lie over for one year.

Dr. A. N. Bell, of New York, moved that it was the sense of the Association that these proposed amendments had been practically considered, according to the requirements of the Constitution, for one year.

The names of the Fellows appointed to serve on the Nominating Committee were read.

THE ADDRESS OF THE CHAIRMAN OF THE SECTION IN THE PRACTICE OF MEDICINE

Was delivered by Dr. John S. Lynch, of Baltimore. The speaker first directed attention to the use of antipyrin, which he had found to be uniformly useful in all febrile diseases. After a brief reference to digitalin, he took up the subject of pulmonary phthisis and Koch's theory of its dependence upon a bacillus. If contagious or infectious, it differs from all other diseases belonging to this class. While he denied that the bacillus is the sole or frequent cause of this disease, it may have some pathological influence in the development of conditions that favor the development of phthisis, especially caseous degeneration. The danger from bad hygienic surroundings he regarded as greater than that from direct contagion. As to treatment, after a fair trial of it in hospital practice, he could report nothing in favor of Bergeon's method of rectal injections of sulphureted hydrogen gas. The treatment has no specific effect upon the disease. While the antiseptic treatment may have a certain value in surgery and obstetrics, in medicine it must always remain an impossibility. Any germicide which can destroy the microbes must kill the patient.

The address was brief. There was no address in Surgery.

The Association adjourned to meet on Thursday.

THIRD DAY—THURSDAY, JUNE 8th.

The Association assembled at 10:10 A. M., President Gregory in the chair.

The report of the Nominating Committee was presented by Dr. William Brodie, the chairman. The following officers were recommended to the Association for election:

President, A. Y. P. Garnett, Washington, D. C.

First Vice-President, Duncan Eve, Nashville, Tenn.; Second Vice-President, Darwin Colvill, New York; Third Vice-President, Charles J. O'Hagan, North Carolina; Fourth Vice-President, A. Stedman, Colorado.

Librarian, C. H. Kleinschmidt, District of Columbia.

Assistant Secretary, J. S. Ransohoff, Ohio.

Treasurer, Robert J. Dunglison, Pennsylvania.

Trustees of the Journal, L. Connor, Michigan; E. O. Shakespeare, Pennsylvania; W. T. Briggs, Tennessee.

Judicial Council, J. H. Murphy, Minnesota; J. M. Toner, District of Columbia; J. R. Bartlett, Wisconsin; A. B. Sloane, Missouri; X. C. Scott, Ohio; A. W. McClure, Iowa; J. W. Stormont, Kansas; J. F. Hibberd, Indiana.

Committee on Necrology, J. M. Toner, chairman.

Committee on State Medicine, R. G. Jennings, Little Rock, chairman.

THE NEXT ANNUAL MEETING

is to be held at Cincinnati on the second Tuesday in May, 1888. Chairman of Committee of Arrangements, Dr. W. W. Dawson, of Cincinnati, with power to fill the committee by appointment.

OFFICERS ELECTED BY THE SECTIONS.

Surgery and Anatomy, Donald McLean, Ann Arbor, chairman; B. A. Watson, Jersey City, N. J., secretary.

Practice of Medicine, A. B. Palmer, Ann Arbor, chairman; N. S. Davis, jr., Chicago, secretary.

Obstetrics and Diseases of Women, Ely Van de Warker, chairman; E. W. Cushing, secretary.

State Medicine, H. B. Baker, Lansing, Michigan, chairman; S. T. Armstrong, Tennessee, secretary.

Diseases of Children, F. E. Waxham, Chicago, chairman; W. B. Lawrence, Batesville, Ark., secretary.

Dental and Oral Surgery, J. Taft, Cincinnati, chairman; E. S. Talbot, Chicago, secretary.

Ophthalmology, Otology, and Laryngology, F. E. Hotz, Chicago, chairman; H. H. Jackson, Philadelphia, secretary.

Dermatology and Syphilography, L. Duncan Bulkley, New York, chairman; T. Fayette Dunlap, secretary.

Medical Jurisprudence, E. M. Reid, Baltimore, chairman; Dr. E. C. Bell, Boston, secretary.

The report of the Rush Monument Committee was read by Dr. Geo. H. Rohé. The committee report progress. They have collected $389, of which $140.08 have been expended for printing, etc.

The report was received, adopted, and referred to a committee of three to audit. Dr. Ronney, of Michigan, stated that the Michigan State Medical Society had appropriated one hundred dollars for the monument fund.

The report of the Committee on Cremation was read by Dr. Morris, of Baltimore, and referred to the Section on State Medicine for discussion.

The following resolution was presented by Dr. J. McF. Gaston, chairman of special Committee to memorialize Congress in regard to Yellow-fever Investigation:

Whereas, an appropriation has been made by Congress for investigating yellow-fever inoculation, and an eminent bacteriologist has been appointed to examine the data presented in Mexico and Brazil,

Resolved, That it is desirable that two other members of the medical profession should be associated in this work, one having practical and clinical acquaintance with yellow fever, and the other being qualified to communicate with the population of the respective localities.

Resolved, That a committee of three be appointed by the President of this Association to communicate this action to President Cleveland, setting forth the grounds for such recommendation.

On motion the report was received.

Dr. F. M. Johnson, of Kansas City, Mo., delivered the

ADDRESS OF THE CHAIRMAN OF THE SECTION ON OBSTETRICS AND DISEASES OF WOMEN.

The past year has given but few remarkable discoveries in either obstetrics or gynecology. Reference was made to tubal diseases, and the ease and lack of danger with which the operation can be performed, diagnosis being made certain. The practice of leaving a portion of an ovary is of questionable propriety. Electricity has become well established as a therapeutical agent in gynecology. Reference was also made to cocaine as a local anesthetic, to the use of nitrate of silver for early discovered lacerations of the cervix, and also to Alexander's operation, which he believed would not stand the test of time. In obstetrics modified cesarean section was probably destined to succeed the use of forceps or version in certain cases.

The salient points in A. F. A. King's paper on the renal troubles and eclampsia of pregnancy and labor were passed in review, and from this the speaker passed to the use of ergot and the management of the placenta. A diversity of opinion exists as to the utility of uterine and vaginal injections during the puerperal period, but the application of antiseptic principles in obstetrics was no longer a question, for the decided reduction of mortality in hospitals was an unanswerable argument in its favor. Better success would be secured in the general use of antiseptics if a broader view of the subject were taken, and more attention paid to the principles of treatment, with less adherence to doctors' methods of carrying it out than has heretofore obtained.

THE ADDRESS OF THE CHAIRMAN OF THE SECTION ON STATE MEDICINE

was delivered by Dr. G. H. Rohé, of Baltimore.

The record for State Medicine during the past year is a creditable one. As to cholera, the danger of invasion of this country is at present greater than at any time within the past three years.

Reference was then made to yellow-fever inoculations, the method now being subjected to an official investigation authorized by the Government. Diligent search has been made for the specific organism supposed to be the infective agent in vaccine virus, but without definite success. The results obtained are not entirely negative, however, and one may cherish the hope that a solution of this problem will soon be reached.

The relation of a peculiar disease in cows to scarlet fever, and the discovery of a specific microbe in the blood in the latter disease, have attracted much attention.

The restriction of scarlet fever will doubtless be more thoroughly effected so soon as physicians are convinced of its bacterial nature and clearly comprehend its mode of transmission.

Measures for the restriction of pulmonary tuberculosis were adverted to. Tuberculous patients should not be treated in the same hospital wards with non tuberculous individuals, and prompt disinfection of the sputa and other discharges should be practiced, in order to diminish opportunities for infection. General sanitary measures should, however, not be neglected in the warfare upon the bacillus. There is danger that a too exclusive attention to the microbian factors of disease will narrow our views of epidemiology and preventive medicine.

It seems to be established that the micro-organism discovered in the intestinal lesions and discharges in typhoid fever is the cause of this disease. The fact that this microbe may preserve its vitality for a considerable time in water and ice has been shown by Bolton, Wolff-Hügel, Prudden, and others. This, together with the well-known history of outbreaks of this disease, undoubtedly depending upon pollution of drinking-water, should make prompt measures of disinfection imperative in every case. The physician fails in his duty who neglects measures for the thorough destruction of the typhoid infection existing in the intestinal discharges. The importance of disinfection of bedding, clothing, and other personal and household articles in contagious diseases, demands that health authorities should have under their control establishments where disinfection can be carried out on a large scale and at public expense. Quarantine—a word which for more than five centuries has been synonymous with barbarism—is becoming, under present methods, a safeguard to the public against infection, and an advantage instead of an obstruction to commerce.

Cremation of garbage seems to be the best method yet devised for the inoffensive destruction or final disposal of solid city wastes. The irrigation system of sewage disposal has steadily won favor.

Professor Vaughan's discovery of a very poisonous ptomaine in cheese, ice-cream, and milk undergoing certain chemical changes, has been confirmed by a number of investigators in various parts of the country. Analyses of food and drugs, made during the year in Massachusetts and New York, show the wide extent to which adulteration is practiced, and how the people are defrauded. Authority and means should be given to the health officers to protect the public from these frauds, many of which are a source of danger to life and health.

Statistics collected by the speaker show that five sixths of the inhabitants of cities in this country have no facilities for bathing, except such as are afforded by a pail and sponge, or an easily accessible river, lake, or other body of water. The establishment of public baths is urgently recommended, both as a sanitary as well as moral measure. Public baths should be open the year round, and not alone during the summer.

A number of instances are grouped together showing how the enforcement of appropriate sanitary measures has saved life. In Michigan the saving of life from one disease (scarlet fever) has amounted, during the last eleven years, to 3,718, or 339 per year. In 1886 appropriate sanitary measures saved the lives of 298 persons who would have died of diphtheria if such measures had not been enforced. In England and Wales the average annual saving of life due to sanitary measures has amounted, in the five years ending 1885, to 62,000. While all advances in sanitary administration have doubtless contributed to produce these good results, the main influence is to be attributed to three factors These are: Compulsory notification of infectious disease, prompt and effective isolation of the sick and infected, and thorough disinfection of all infected articles and sources of infection. These must be the watchwords of the practical sanitarian of the future.

Dr. G. S. Knox, of Chicago, presented the

ADDRESS OF THE CHAIRMAN OF THE SECTION ON DISEASES OF CHILDREN

The address was read in abstract, and had for its subject diatheses in diseases of children. The speaker brought out concisely the relation existing between diseases in children and the tubercular, syphilitic, and rheumatic diatheses.

The Treasurer's report showed a balance in the treasury of $1,403.77.

The Librarian's report was read and placed on file.

The Committee on Finance of the International Medical Congress asked for an appropriation of money. After stirring speeches, in which were set forth the pressing and urgent financial needs of the Congress, one thousand dollars were appropriated, and it was earnestly hoped that every member of the Association would make immediate and liberal contributions, besides the amount required for membership.

Dr. N. S. Davis, of Chicago, offered the following resolutions, which were made the special order for Friday, at the conclusion of the address:

First, That regular graduates of dental and oral schools and colleges which required of their students a standard of preliminary or general education to the term of professional study be recognized as members of the regular profession of medicine, and eligible to membership in this Association on the same conditions and subject to the same regulations as other members.

Second, That the Committee of Arrangements are hereafter directed, at each annual meeting of this Association, to so arrange the programme regarding entertainments and receptions that the evening of the third day be reserved for the regular annual dinner, under such regulations that the members may dine with or without wine, according to choice, and pay only for what they elect to have furnished, and that that be the entire cost of the dinner, leaving no part to be paid either by the local profession or the Treasurer of the Association.

Dr. Burge, of Brooklyn, introduced resolutions, which were adopted, and which directed the Committee of Arrangements hereafter to adopt some efficient means for preventing conversation and noise in the hall during the general sessions of the Association.

The Association then adjourned to meet on Friday at 10 A. M.

FOURTH DAY—FRIDAY, JUNE 10th.

The Association was called to order by the President.

The address of the chairman of the Section on Dental and Oral Surgery was delivered by Dr. J. S. Marshall, of Chicago.

Dr. J. M. Quimby, of Jersey City, N. J., read the

ADDRESS OF THE CHAIRMAN OF THE SECTION ON MEDICAL JURISPRUDENCE.

He first gave an outline of the history of medical jurisprudence from the early periods of Hebrew, Greek, and Roman antiquity. The only medical laws of which we have any distinct account during the Dark Ages were for the prevention of infectious diseases at Venice, A. D. 1127. But special quarantine regulations, scarcely worthy of the prefix medical, were not established until more than two centuries later. The cloud began to lift in the early part of the sixteenth century, under the reign of Charles V. The criminal code of the German Empire, enacted in 1532, contains the first appreciation of rational medicine in union with law. This justly celebrated code requires that physicians shall be called by the courts in all cases where death has been the result of violent means, whether accidental or criminal. The office of coroner is as ancient as A. D. 905, and originated among the Saxons. The functions of the coroner in England and France were then described, and it was seen that more weight attached to the importance of medical testimony in coroners' cases in France two centuries ago than now obtains in the United States.

Medical jurisprudence was first taught in the medical schools in Germany in the latter part of the eighteenth century. But the first professorships were created in France in 1792, and in 1803 the University of Edinburgh followed the example. No similar chair was established in England, however, until sixteen years after. It was taught in a course of lectures in Columbia College, New York, by Jas. S. Stringham, Professor of Chemistry, in 1817, who was succeeded by John W. Francis.

The preservation of fetal and infantile life was then considered, and he suggested that a special committee be appointed by the Association to report at the next annual meeting on the criminality of feticide, and such measures as may be commended for legislative action for its prevention and punishment. Attention was directed to the duties exercised commonly by coroners and the means of improving medical police in regard to immigration, with special reference to the detection and prohibition of chronic invalids and insane persons.

The address closed with a special reference to the medical jurisprudence of drunkenness.

Dr. J. M. Toner, of Washington, presented the report of the Committee on Neurology.

Dr. N. S. Davis, of Chicago, reported from the standing Committee upon Meteorological Conditions and their relations to the prevalence of disease; also concerning the collective investigation of disease in co-operation with the committee of the British Medical Association.

The customary resolutions of thanks to all who had contributed to the success and pleasure of the meeting, to the citizens and the profession of Chicago, to the railroads which had given reduced rates, to the Chairman of the Transportation Committee, and to Assistant Secretary Liston H. Montgomery, of Chicago, to the various committees and their chairmen, and to the President, were adopted.

A telegram from Dr. Garnett was received, acknowledging the high honor conferred upon him in electing him President

The Association adjourned.

KENTUCKY STATE MEDICAL SOCIETY.

Thirty-first Annual Meeting, held at Paducah, June 15, 16, 17, 1887.

FIRST DAY—WEDNESDAY—MORNING SESSION.

The Society was called to order at 10 A. M., the President, W. H. Wathen, M. D., of Louisville, in the chair. Prayer was offered by the Rev. Dr. Lober.

Dr. Brooks, of Paducah, Chairman of Committee of Arrangements, delivered the address of welcome. He said, "We are glad you have left your every-day work and come to meet with us and tell us of your experiences, your successes, and your failures. We are sure it will improve us. It is the aggregated individual experience, sifted, sorted, reasoned upon, and I may say elaborated, that makes up the sum of all knowledge of to-day."

SECRETARY'S REPORT.

Dr. Steele Bailey, Secretary, reported as follows: "During the past year the Secretary's office has been in frequent receipt of letters and papers of inquiry from insurance companies, from medical examining boards, and from State boards of health, while editors of various medical journals and many doctors from distant States have sent queries in relation to professional matters in the commonwealth, to all of which I have replied promptly, courteously, and to the best of my ability. There have been issued from my office, including the printed minutes now before you, seven hundred and fifty letters, circulars, and postal cards. A copy of the Minutes of 1886 was mailed to each secretary of the several State societies, and the same courtesies have been extended to us in return from almost every State Medical Association. A copy of my account is filed herewith as a part of my report."

TREASURER'S REPORT.

Dr. Edward Alcorn being absent, the Secretary read his report, showing a balance in the treasury of $187.35. The report, on motion, was adopted.

Dr. E. R. Palmer, of Louisville, presented an invitation from the Mitchell District Medical Society, of Indiana, to visit its meeting at French Lick Springs on July 1st. The invitation was, on motion, accepted.

AFTERNOON SESSION.

Dr. J. B. Marvin, of Louisville, read the report on

THE PROGRESS OF MEDICINE,

in which he gave a thorough and judicious view of the present aspect of medical science as affected by the year's discoveries. After showing that while the microbian theory of disease had sustained strong claims to the consideration of the profession, only in very few instances was the causative relation of known germs to the production of disease established to the degree of certainty required by severe logic.

He considered the contributions of Sir Andrew Clark on the curability of diseases of the heart, and the researches of Drs. McAlister and McClayton on fever, among the most important contributions of the year.

The new treatment of consumption, after the plan of Bergeon, had failed to prove more than palliative, and a specific treatment for the disease remains yet to be discovered.

Discussion.

Dr. D. T. Smith, in discussion, said the fact that men may live years of useful lives after various heart affections had supervened was not new, yet the public and the profession instinctively clung to the old feeling that a man with heart disease was doomed to a speedy death, and both needed to be often reminded that such is by no means the case. If the condition which produces the heart trouble is not a progressive one, the heart trouble also need not be. Many forms of heart disease may not only be arrested but cured.

As to the cause of fever, he thought the question might be greatly simplified by keeping in view the fact that all heat must be due primarily to oxidation. If the nerves regulate it, it is to be presumed they do so by withdrawing their vitalizing influence from tissue cells, allowing these to be broken up and presented for oxidation. In Dr. Ord's experiments with the cucumbers, that gentleman had forgotten that the elaboration of tissue, which at best is a heat-absorbing, and under no circumstances a heat-evolving process, takes place in the leaves and not in the fruit.

Dr. Seargent, from the Committee on Improvements in Materia Medica, read an elaborate paper on the

SURGICAL USES OF COCAINE,

describing in detail the mode of its application at different points and under various conditions. Its successful use in certain skin diseases, such as pruritus vulvæ, and in vaginismus, was also adverted to.

Discussion.

Dr. J. H. Letcher said: "I have used cocaine in the removal of small tumors, in removing foreign bodies from the cornea, in all cases exhibiting the four-per-cent solution; and, while some alarming symptoms have been noticed, I have had no bad results. Three centigrams have proved fatal. Though not devoid of danger, I regard it as one of the most useful agents in the materia medica.

Dr. Carpenter had had good results from its use in vaginismus, but on the extremities, where he could apply a bandage, he always had better results. Had had a labor case of twenty-four hours' standing, in which, taking a bunch of absorbent cotton, dipping into a dram and a half of four-per-cent ointment made up with vaseline, and introducing it well up against the os, he made the patient sleep in a few minutes. In three hours the os had dilated, labor came on, and the patient was delivered with but little pain. He had also used it in solution, but preferred the ointment.

Dr. Seargent, closing the discussion, said: "My paper discussed the advantages and not the disadvantages of the drug. I am also inclined to believe that some have been using it in too strong a solution."

Dr. Hammond, in his experiment upon himself, using eight grains, had symptoms similar to those produced by the ingestion of large quantities of alcohol.

Dr. Wm. Cheatham read a paper on

THE PUPIL IN HEALTH AND DISEASE,*

giving a full *resumé* of the nerve supply and nerve connection of the pupil, its action in health, and the manner in which it is influenced by various diseased conditions.

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*Will appear in an early issue of AMERICAN PRACTITIONER AND NEWS.

Discussion.

Dr. Ray said: "The terms mydriasis and myosis, or dilatation and contraction of the pupil, are not very expressive, because the normal size of the pupil varies much under different circumstances. It is generally smaller in old age than in children, smaller when the eye is exposed to bright light, larger in the dark. It is also larger in myopia than in hypermetropia. The pupil becomes contracted when the eye converges, and unless we adopt some standard for measurement, the statement of the size of the pupil will always be unscientific.

"I saw Mr. Nettleship, at Moorefield, in London, use a card on which were placed different sized black spots, each of which had a diameter of so many millimeters, and by comparison he estimated the size of the pupil. This is the quickest and about as accurate as any instrument I know of, although several have been made for this purpose. The determining cause of dilatation and contraction of the pupil may be local or general, the latter being a study of much interest to neurologists.

"The recent investigation of Eversburch, of Munich, seems to settle negatively the question as to whether there is a radiating muscle in the iris. The studies of Henle, Juanoff and Markel seemed to settle the question in the affirmative, and were for a long time adopted by text-books without question.

"If the statement of Eversburch is true, that the fibers heretofore taken for muscle are not muscular, but nerve fibers, we will have to find some other theory to account for active dilatation of the pupil."

Dr. I. N. Bloom read an elaborate paper on

ELECTROLYSIS IN THE REMOVAL OF SUPERFLUOUS HAIRS.*

He minutely described the best method of accomplishing this, and exhibited the working of the rheostat and galvanometer, claiming that it is essential to satisfactory work that we should be able to gauge exactly the strength of current we employ.

EVENING SESSION—PRESIDENT'S ADDRESS.

The President, Dr. W. H. Wathen, delivered the annual address.

From his experience in the specialty of obstetrics and diseases of women he had come to the conclusion that neither among the profession nor the laity was the position of the specialist properly appreciated.

Differentiation in the study and practice of medicine has permeated the thought of the age.

Specialties in medicine were in vogue from the time of its first recorded history. But there should be no pretense in the practice of specialism, and for one to enter a specialty without a theoretical and practical knowledge of general medicine is a species of charlatanism contemptible and degrading, an attempt to nurture a kind of quackery until it becomes the rankest weed in the garden of medical progress. A pretender in medical specialism is a public nuisance.

Specialism is not only growing in medicine but in all the natural sciences. As the general practitioner can not become acquainted with every form of disease, it is his duty to refer patients in special departments to such as have made such diseases a special study. The specialist should be honest in his relations with the profession and the people, and thorough in his knowledge of the science and practice of medicine.

THURSDAY MORNING.

The Society was called to order at 9 o'clock.

The Nomination Committee submitted the following report: President, John G. Brooks, Paducah; First Vice-President, L. S. McMurtry, Danville; Second Vice-President, Geo. Beeler, Clinton; Permanent Secretary, Steele Bailey, Stanford; Assistant Secretary, Fayette Dunlop, Danville; Treasurer, Edwin Alcorn, Hustonville; Chairman Committee of Arrangements, E. R. Palmer, Louisville; Librarian, J. G. Taylor, South Union; Board of Censors, Dudley S. Reynolds, Louisville, J. H. Letcher, Henderson, W. E. Rodman, Hodgenville.

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*Will appear in an early issue of AMERICAN PRACTITIONER AND NEWS.

The Society will hold its next annual meeting at Crab Orchard, beginning with the first Wednesday in July. The report was unanimously adopted.

Dr. J. N. McCormack moved that a committee be appointed to revise the Constitution and By-laws of the Society, and have the same printed. Carried. Drs. McCormack, Steele Bailey, and Coomes were made the committee.

Dr. McMurtry called attention to the fact that the Society had been asked to contribute to the International Medical Congress, which meets in Washington City in September. On motion the Society gave $250.

Dr. Bohannon reported a case of

COMPOUND COMMINUTED FRACTURE OF THE CRANIAL VAULT,

with lacerations of membranes and brain, and loss of brain matter. Recovery. He also exhibited the patient and a large plate of bone removed from the skull.

The patient, a negro man, had been struck by a moving locomotive engine, resulting in a fracture of the skull, which necessitated the removal of a portion of the bone measuring three inches by two. Spiculæ of bone had been driven through the membranes into the brain, and their removal was followed by an escape of brain substance. There was paralysis of the upper and lower extremities. The wound was treated with the most careful regard to antisepsis, and the patient has recovered so as to be able to go about upon crutches. Paralysis of the upper extremities disappeared in the course of ten days, and now, after fifty days, the paralysis had so far disappeared from the lower extremities as to enable the patient to go about as now seen. The seat of fracture was unequally divided by the sagittal suture.

Dr. O. D. Todd read the next paper, entitled

SURGICAL EMERGENCIES.

He spoke of the well-nigh universal acceptance of antiseptic treatment, and urged it as the duty of every one liable to be called suddenly to do operations in surgery to be provided with appliances ready at hand for carrying out treatment on antiseptic principles, since in many cases their use at the first is a matter of vital importance. In penetrating wounds of the abdomen this is especially the case.

He said when surgeons get into the habit of being prepared for the treatment of these cases at once, and the public mind is educated to the necessity of immediate operation, that instead of ninety-two per cent of deaths, as now occur, the mortality will be reduced to a very low figure.

Discussion.

Dr. Greenley said: "I remember when surgeons were called from Louisville to perform minor operations, no one else being at that time considered competent. Now our young country surgeons are doing such operations as ovariotomy with wonderful success.

"Is all this due to antisepsis? I think not. We are not to attribute to its use the changes made in hospitals and the manner of taking care of patients. Success of modern surgery is due to more favorable hygienic surroundings, in my opinion."

Dr. Greenley read a paper, entitled

THE CAUSE OF MALARIAL FEVER—IS IT AN ENTITY?*

Dr. G. entered into a review of the various theories as to the cause of malaria, and concluded with a preference for the view that the disease is due to a specific cause, probably a microbe, and nearly related to that which produces yellow fever, tracing the points of resemblance between this disease and yellow fever. He thought it probable also that the various manifestations of malarial disease, such as quotidians, tertians, quartans, etc., depended upon varieties in the character of the microbe which produced them.

Dr. E. R. Palmer read the report on

GENITO-URINARY DISEASES.

(See page 385.)

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*Will appear in an early issue of AMERICAN PRACTITIONER AND NEWS.

Discussion.

Dr. I. N. Bloom dwelt on the importance of recognizing the fact that the differentiation of chancre and chancroid is in many cases extremely difficult. He did not believe that iodol and iodoform were losing caste, though he still preferred iodoform. He thought the method of treating syphilis by means of subcutaneous injections of mercury deserved greater prominence than had been given it.

Dr. L. S. McMurtry made the report on

ABDOMINAL SURGERY.

He gave a history of ovariotomy as having led the way to the present advanced position of that branch of surgery. He advocated early operation in all cases of intestinal obstruction, and also for penetrating gun-shot wounds of the abdomen. Hence acute peritonitis he regarded as almost without exception septic, and thinks there are numerous cases of puerperal peritonitis in which abdominal section offers the only hope to the patient.

Discussion.

Dr. Dickson said: "It is said 'surgeons in Germany were once taught to fear God and the peritoneum.' Later their fear of the former continued, while fortunately the fear of the latter was diminished. Coaptation of all the cut surfaces and free drainage should be strictly and carefully observed.

"Laparotomy should be practiced in gunshot wounds, as suggested in the paper of Dr. McMurtry, and men likely to be called to do these operations should perform them upon lower animals, and in this way gain experience that will be of great value."

AFTERNOON SESSION.

Dr. Mathews made a verbal report on

DISEASES OF THE RECTUM.

He spoke of the existence of constipation as a common affection of school-girls, often leading to serious disturbances of health. He treated these cases by giving mild purgatives for a number of nights in succession, with hot and cold bathing, Turkish baths, often supplementing with massage.

Fecal impaction he treats with injections of warm water thrown above the mass into the colon.

He preferred to treat strictures with the knife, regarding the use of the bougie as calculated to increase the unfavorable condition of the parts. He also condemned divulsion.

The treatment of prolapsus with acids he thinks is to be condemned, while he has tried the thermo-cautery with unsatisfactory results. Incision and stitching he regards as a serious operation, as we can not practice antisepsis in this situation. A recent case in an old man, sixty-two years old, he had treated by passing a needle down into the bowel, encircling it with a strong cord, and allowing it to slough away.

Discussion.

Dr. Greenley: "I would suggest one thing the speaker has failed to mention, and that is habit. At a certain hour I have my patients go to stool and force an operation."

Dr. von Donhoff: "I am surprised at some of Dr. Mathews' operations in contradistinction to other operations, and the views taken by him. I take it on scientific grounds that the methods of Lange are more scientific than the ones suggested. For instance, in the operation for prolapsus, I don't understand the propriety of leaving such a mass as would be likely to produce a fatal condition. I must pronounce it as unscientific and not surgical. The sloughing gut leaves behind it a condition which antiseptic surgeons consider very unfavorable, yet I agree that antisepsis is not readily adapted to this situation, if to any part of the body."

Dr. Mathews, in closing the discussion, said: "I know and recognize the experience of Dr. von Donhoff. I have done this operation dozens of times, and regard it as one of the most difficult operations upon the rectum, yet in the number of times I have operated the results were always favorable."

Prof. John A. Ouchterlony read an able paper on

THE PREVENTIVE TREATMENT OF TUBERCULOSIS.*

After calling attention to the wide distribution and great destructiveness of the disease, he pursued a course of elaborate argument to prove that the bacillus tuberculosis is the cause of consumption, and that a favoring, if not a necessary, condition of its development is a condition of the tissues affording a favorable soil for the growth and multiplication of the bacilli. He urged that preventive treatment should be conducted with regard to these views: First, by ventilation, open-air exercise, choice of occupation, and by appropriate food and exercise, the systems of all should be kept in a condition to resist the invasion of the microbe. In the second place, by appropriate methods of sanitation and disinfection the access of the bacillus should be prevented. Patients suffering from the disease should be, as far as possible, isolated. Mothers suffering from the disease should not nurse their children, and marriages should be discouraged as far as possible among those of consumptive tendencies, and especially among near relations.

Discussion.

Dr. McMurtry said: "Pulmonary tuberculosis kills so many people, and after it once begins so little can be done, that Prof. O. did a good part in devoting his attention to its prophylaxis rather than its treatment. I have a patient in Mexico the subject of tuberculous disease; and having warned him of the danger of communicating the disease to his wife, he finds it most difficult to keep her away from him, the attempt being very unpleasant. If we can do any thing after it has developed, it will be necessary to pay some attention to climatics."

Dr. D. S. Reynolds said the first condition in the production of consumption was an excess of lymph in the vessels, and the next an abraded condition of the mucous membrane of the respiratory passages, permitting access of the tubercle bacillus. The bacillus had been found very extensively in most all places of human resort, and he thought the most hopeful effort lay in the direction of getting rid of the excess of lymph.

A. R. Jenkins, M. D., of Henderson, read a paper on the

MODERN TREATMENT OF WOUNDS.

The author took strong grounds in favor of the most advanced antiseptic treatment.

Discussion.

Dr. von Donhoff said: "I eschew every thing in the way of chemical antiseptics in my practice. When we consider what is said and accepted concerning Lister, we have principally praise, something akin to worship.

"Nature heals a breach in two ways: first, hermetically sealing the wound; second, by covering the surface with granulations and preventing absorption. Both processes, once established, are safeguards against infection. Nature tolerates no filth, soluble or insoluble. If it be soluble, she takes it up, and if it is insoluble, she incarcerates it. We learn from those whose experience has been as great as Schroeder's, that, eschewing every other detail, save that which is aseptic or dry, clean surgery, we have results which are equally as good."

Dr. Jenkins replied: "Billroth and others understand aseptic surgery sufficiently well, and I suppose that is the only reason they do not lay these things aside."

Dr. D. S. Reynolds read a paper on

RECENT DISCOVERIES IN PATHOLOGY,

devoting his attention largely to the mode of contagion and prophylaxis of tuberculosis.

Dr. J. N. McCormack, Secretary of the State Board of Health, read a paper on

THE PREVENTION OF COMMUNICABLE DISEASES.

The essayist described the rapid and healthy growth of modern preventive medicine, it having in many countries taken rank among the most useful branches of government. In our own country governmental action in these matters is likely to be the result only of a strong popular demand, and the people should therefore be educated to a right understanding of the interests involved.

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*This paper will appear in our next issue.

He spoke of the cost to the community in life and treasure of contagious diseases, a large proportion of which are preventable.

For the more effectual carrying out of preventive measures, and educating the people to their true interests in these regards, he advocated the formation of local health associations in every neighborhood. He entered into the details of the most efficient methods of disinfection, which he thought should be thorough or not undertaken at all, since inefficient efforts only tended to impair public confidence in regard to the utility and value of all methods of disinfection. A sketch of the present condition of health work in Kentucky was also given by the author, from which it appears that one hundred and eighteen counties in the State have boards of health; but in many cases these boards do not appreciate their responsibilities, and are not themselves appreciated by the people whose interests they are appointed to guard.

Report on Necrology read by title.

Dr. Archibald Dixon read the report of a case of

RUPTURE OF THE URETHRA, WITH EXTERNAL URETHROTOMY,

and incidentally discussed the various procedures in the treatment of such cases. (See page 392.)

Discussion.

Dr. W. O. Roberts remarked: "Dr. Dixon has gone so well into the subject that it is hardly necessary for me to say any thing. The interesting cases to which he refers reflect a great deal of credit upon the operator. I agree with him in regard to his operations for external urethrotomy. I did this operation on a man, who, in climbing a ladder, made a misstep, and fell astride the round, Two rounds broke, but the third held him. On making an examination I soon discovered that he was unable to empty his bladder, which could be felt far above the pubis. Being satisfied there was a rupture of the urethra, I recommended a perineal section. On the fourth day, after gaining his consent, I operated, doing an external urethrotomy. After the operation a tube of small size was introduced into the bladder. The first night following he presented very favorable symptoms. He is now using a sound to guard against stricture.

FRIDAY MORNING.

Dr. Ouchterlony said: "I sincerely regret that the President left the city since last night. It must indeed have been an urgent summons that caused this sudden and unforeseen departure. And now this honorable body finds itself without a presiding officer, both Vice-Presidents having been prevented from attending the meeting. The By-laws, however, contemplate the possibility of such an emergency, and provide, that, in the absence of the President and both the senior and junior Vice-Presidents, a President *pro tem.* shall be elected. I therefore nominate Dr. John G. Brooks, of Paducah, for the office.

Dr. Brooks was elected by acclamation.

The President *pro tem* then announced the following appointments:

Report on Progress of Practical Medicine, J. A. Ouchterlony, M. D., Louisville.

Report on Progress of Surgery, W. O. Roberts, M. D., Louisville.

Report on Progress of Obstetrics, J. W. Irwin, M. D., Louisville.

Report on Public Hygiene, George Beeler, M. D., Clinton.

Report on Progress of Opthalmology, J. M. Ray, M. D., Louisville.

Report on Genito-urinary Diseases, E. R. Palmer, M. D., Louisville.

Report on Clinical Surgery, J. N. McCormack, M. D., Bowling Green.

Report on Laryngology, Wm. Cheatham, M. D., Louisville.

Report of Committee on Dermatology, I. N. Bloom, M. D., Louisville.

Report on Pathology, Dudley S. Reynolds, M. D., Louisville.

Report on Medical Ethics, O. D. Todd, Eminence.

Report on Orthopedic Surgery, Edward von Donhoff, Louisville.

Report on Necrology, Pinckney Thompson, Henderson.

Surgical Appliances in the Treatment of Diseases of Nose and Throat, M. F. Coomes, Louisville.

Report on Antipyretics, or the Therapeutics of Fever, H. J. Cowan, Danville.

Delegates to American Medical Association which meets at Cincinnati, May, 1888: Drs. Edward R. Palmer, J. Morrison Ray, D. T. Smith, Dudley S. Reynolds, W. H. Wathen, M. T. Scott, J. F. Payton, J. B. Evans, George Beeler, J. G. Brooks, L. S. McMurtry, J. M. Mathews, M. F. Coomes, J. A. Ouchterlony, J. B. Marvin, Edward von Donhoff, Steele Bailey, J. H. Letcher, Edmund Alcorn, W. M. Cowgill, O. D. Todd, R. M. Fairleigh, J. N. McCormack.

Dr. J. Morrison Ray offered the following resolution:

Resolved, That the Kentucky State Medical Society offer its most grateful thanks to the Committee of Arrangements and the profession of Paducah for the generous hospitalities extended us during the present meeting.

Resolved, That we congratulate the officers of this Society for the efficiency and dispatch with which the duties of their position have been performed.

Resolved, That the cordial thanks of this Society are due the various railroads for their liberality in the reduction of fares.

Resolved, That this Society will hold in most pleasant remembrance the ladies of Paducah for the many courtesies shown its members, and that we go from this city with a most happy impression of the hospitality of its citizens.

Dr. J. D. Smith, of Paducah, read a paper entitled,

PRACTICAL THOUGHTS ON SOME OF THE MORE COMMON FORMS OF UTERINE DISEASES.

In flexions of the uterus he recommended the replacement of the organ, and sustaining it by means of cotton tampons with boracic acid in the vagina until the shortening of ligaments and adhesions were overcome, and thoroughly applying an unyielding pessary. He recommended the Hodge pessary, as also Thomas' modification of it. He held that the vaginal pessary, with proper precautions, greatly assisted such measures as electrolysis, the hot douche, etc., in overcoming the various uterine derangements.

Dr. Lloyd read a paper entitled,

BRIEF REMARKS ON PNEUMONIA IN SOUTHERN KENTUCKY.

He had been treating pneumonia for thirty-five years in that section, and had shared in the general experience that pneumonia does not there bear depressing treatment. Beginning with blisters and bleeding, he has come to using only such means as are calculated to increase the strength of the patient and to sustain the vital forces. He has found that the disease was not to be cut short by any method of treatment.

He also discussed the prognosis of the disease, and said that its fatality depended more upon the condition in which the patient was found at the outset than upon any other circumstance. After a healthy season, when the physical state of the community is at its best, the disease is seldom fatal, while after seasons of intense malaria the mortality is often frightful, death in such cases frequently occurring very early in the course of the disease.

Discussion.

Dr. Ouchterlony said: "I stimulate not for the disease, but for a purpose, being actuated by the condition of the pulse; as soon as it becomes weak or wavering I begin to use stimulants freely. I rely upon carbonate of ammonia, not as an expectorant, for the solidified lung is not cleaned by expectoration, but by liquefaction. I give it because it is a heart tonic and a heart stimulant, because it tends to prevent heart clot. Statistics all over the world show that the tendency to death in this affection is by heart failure, so that is the complication which should receive most attention. He had noticed also that in winters following seasons of excessive malaria the mortality is always great.

Dr. Jackson read a paper on

ASIATIC CHOLERA,

in which he took the ground that an indispensable condition of the multiplication of the cholera germ is the presence of lime in the water of the locality where the cholera germ occurs. Without lime the germ perishes, and no further reproduction can occur. Dr. Jackson referred to the correspondence between the distribution of cholera in the United States and the occurrence of lime as shown by geological maps of the United States.

After a brief address by the President-elect the Society adjourned.

Abstracts and Selections.

The Proper Selection of Ether or Chloroform as an Anesthetic.—Dr. A. P. Gerster read a paper upon this subject before the New York Academy of Medicine, April 7, 1887. In approaching this subject, he said it was necessary to cast away all prejudice, considering it in a spirit of candid inquiry. In the first place, it was to be borne in mind that both ether and chloroform were dangerous anesthetics. Researches with the aid of the sphygmograph, demonstrating the effect upon the pulse, had shown, however, that chloroform was infinitely the more powerful agent of the two. Still, this fact did not afford ground for the universal condemnation of chloroform, though it rendered greater caution necessary during any operation in which it was used. But, while chloroform was the more powerful agent, and consequently attended with more danger at the time of the operation, its employment was not followed by the secondary affections of the lungs and kidneys which were apt to result from that of ether.

The statement frequently made by partisan zealots, that ether is always and under all circumstances safe, was not true. In hospital practice it was found that in a considerable number of patients, particularly those addicted to the use of alcohol, it was exceedingly difficult to produce profound anesthesia with this agent, and in such cases, from the effect of the excessive and irritating mucous secretions excited, catarrhal or septic pneumonia was very apt to ensue. Admitting that, on the whole, ether was safer than chloroform, Dr. Gerster proceeded to speak of the manner of administration, and recommended, as superior to any other, that by means of Ormsby's inhaler. He then went on to say that ether was contra-indicated in all affections impairing the renal function, a circumstance the credit for first pointing out which belonged to Dr. Emmet. Having referred to cases showing the danger of ether when nephritis was present, he expressed the opinion that an examination of the urine should be made in every case before administering an anesthetic, except where the urgency of the circumstances precluded this; when, if Bright's disease was discovered, chloroform was to be preferred as the safer agent.

Ether, he said, was also contra-indicated where, in the aged or in young children, or generally in the feeble, there were catarrhal conditions of the air-passages. Having related three cases of his own practice, in which he claimed that fatal or dangerous pneumonia was set up by ether in patients suffering from cancer, he stated that, in the year 1886, three cases of pneumonia occurred after the administration of this agent in the Mount Sinai Hospital, in two of which the patients died, while in the third recovery took place. There were also five cases of severe bronchitis, arising under similar circumstances, reported during the year. Dr. Gerster said he had four more cases in his notes, but, as these operations were performed either upon the trachea, larynx, or lower jaw, it was possible that the entrance of blood into the air-passages might, perhaps, have caused the trouble, and he would not therefore insist on these. As anesthesia by ether was dangerous in young children suffering from affections of the air-passages, chloroform was always to be preferred under these circumstances, although in healthy children ether was borne well.

The third class of patients in which chloroform was to be preferred was those who could not be satisfactorily brought under the influence of ether. In the incomplete anesthesia caused by it, there was an amount of muscular rigidity remaining which constituted an inseparable difficulty in quite a large class of cases. Not only loss of sensation, but total relaxation of all the voluntary muscles, was indispensable in many operations; and, in spite of proper preliminary precautions, and the greatest amount of care in the administration of the anesthetic, in eleven cases out of one hundred and twenty-five, at the Mount Sinai Hospital, it was found impossible to produce with ether the complete anesthesia required. In all these instances, however, a change to chloroform was attended with the happiest results. Recapitulating, he said, then, that ether should not be used as an anesthetic in any case, (1) where acute or chronic nephritis is present, or is suspected to exist; (2) where there is any chronic pulmonary affection, especially in the aged or feeble; (3) where ether will not produce the complete anesthesia and relaxation indispensable for the successful performance of the operation in question.

Dr. Gerster then went on to say that, while in general the administration of chloroform undoubtedly required greater caution than that of ether, there was only one contra-indication against chloroform, namely, the presence of a fatty or weak heart. In the hands of a careless giver of anesthetics chloroform was, no doubt, more dangerous than ether, but Bright's disease offered no contra-indication to chloroform. In eight years' hospital experience he had met with but two cases in which pneumonia followed the administration of chloroform, and in both of these the probable cause of the pulmonary trouble was the entrance of blood into the bronchi. The existence of valvular disease of the heart, again, was not a contra-indication to chloroform, provided there was satisfactory compensation by muscular hypertrophy. On the other hand, if the heart were feeble from any cause, chloroform should never be used. In anemia, also, ether was, as a rule, safer.

He next spoke of the special danger of chloroform in cases of marked nervous depression, and said it should never be used when the patient was in a state of fright. It was a fact that most of the deaths from its use were in cases of slight operations, and he thought this was explained by the dread of the operation or the anesthetic. In severe operations the patient generally nerved himself for the ordeal, and hence there was less danger from this source.

On February 10, 1886, Thomas R., aged thirty-two years, consulted Dr. Gerster, at his office, for a tumor on the lower part of the face. When an exploratory incision was proposed, he became so much alarmed that he begged for chloroform, which was not given at this time. Five days later he was admitted to Mount Sinai Hospital as a private patient, and on the 17th Dr. Gerster proceeded to operate on the tumor, which proved to be a glandular abscess. He subsequently learned that the patient expressed the conviction that he would never leave the operating-room alive. When two drams of chloroform had been administered, by means of Esmarch's mask, opisthotonos suddenly occurred, the pupils became dilated, and the abdominal muscles were found to be rigid. The pulse ceased, and within a minute the patient was dead, all efforts at resuscitation proving futile. The experience gained in this case, he said, had led him to administer stimulants and a small dose of morphia prior to operating in all cases where the patient was not in perfectly good condition, and he would now never give chloroform to any one who was the subject of deadly fear. In every instance in which it was feasible, a careful physical examination should be made, and the probable prognosis duly announced to the patient or his friends before proceeding to employ this anesthetic.—*Boston Medical and Surgical Journal.*

Canalization and Catheterization of the Fallopian Tube.—Diseases of the fallopian tubes were but recently looked upon as pathological luxuries "of little clinical importance." Within the last few years it has been shown that inflammation and obstruction of the tube is a disease by no means infrequent, and that papilloma of the same structure, though very rare, may occur as a distinct affection with marked symptoms. Hence, certain observers are once more turning their attention to an old question—the canalization and catheterization of the tube.

In the thirtieth volume of the *Archiv für Gynäkologie*, part i (January, 1887), Dr. Gönner, of Basle, describes two cases of high interest. In removing some diseased endometrium, by means of a curette, from a young woman who had aborted three months previously, he found that the curette could be made to pass till it touched the fundus uteri, and could then be turned to the left and pushed onwards, without the employment of the least force, until eight inches of its shank had passed above the os externum. The instrument was removed and once more passed in the same direction without difficulty. No bad results followed, and the patient was in good health. Six weeks later involution of the uterus was found to be complete. Dr. Gönner about the same time examined another young patient a month after delivery. The forefinger could be passed for an inch into the uterus in order to guide the sound, which touched the fundus at a distance of four inches from the os externum. On careful and gentle manipulation, the sound could be passed to the right for seven inches beyond the os. The point could be felt entering into a cavity. Another physician, without having heard the results of Dr. Gönner's exploration, passed the sound as far in the same direction on the following day. The left tube could not be sounded. The curette was introduced and a piece of retained placenta was removed; that instrument could not be passed into either tube. On the tenth day after the removal of the placental relics, the patient was suddenly seized with pain in the right side of the hypogastrium when attempting to sit up in bed. The temperature rose to 103.8° F., the pulse was weak, the hands cold, the abdomen very swollen and tender. There was resistance in the hypogastrium to the right, and dullness nearly up to the umbilicus. The area of dullness became distinctly circumscribed two days later; it then extended much higher on the right than on the left side. The patient recovered slowly, and left the hospital two months later. Professor Bischoff believed that tubo-uterine gestation existed, since it appeared that a part of the placenta lay in the dilated uterine end of the tube. Dr. Gönner admits the possibility that in one or both of his cases the uterine walls may have been perforated, but, he adds, the careful guiding of the instrument from the fundus and thence laterally without any force seemed rather to indicate that it really entered the fallopian tube.

Dr. Tyler Smith, in 1849, advocated catheterization of the tube for the cure of sterility; and Frankenhäuser, later on, recommended the same for the removal of morbid contents. In 1872 Bischoff passed a sound six inches and a half beyond the os externum in a patient with cystic tumor of the ovary. The patient died a few days after ovariotomy. Dextroversion and flexion of the uterus were discovered at the necropsy. The highest point of the uterus was the part whence the left tube arose; a sound could readily be passed into that tube.

Dr. Matthews Duncan, who insists on the physiological canalization of the tube for the transmission of the fecundated ovum, describes in the appendix to his Clinical Lectures a very similar case. He passed the sound far beyond the right side of the uterine cavity before ovariotomy. The patient died, and the right tube was observed lying in the route which the sound had taken, and its uterine extremity was patent and wide enough to transmit a common surgical probe. The same obstetrician declares, in his Practical Treatise on Perimetritis and Parametritis, that, in one of his cases of "encysted serous perimetritis," he could easily pass the sound through the left fallopian tube into the peritoneal cavity.

Some interesting discussion on the transmission of morbid material from without through the fallopian tube into the peritoneal cavity are to be found in the last two volumes of the Transactions of the Obstetrical Society of London. Dr. Gönner's cases tend to prove, what has already been suggested, that the tubes are unusually patulous after parturition. Hence, perhaps, the frequency of tubal disease and pelvic peritonitis after abortion and mismanaged labor at term, especially when the patient is infected with gonorrhea. The second case is, we trust, a wholesome warning against any systematic attempt to sound the tubes, especially in the out-patient room. In the present state of our knowledge, catheterization of the tube is to be regarded rather as an accident, to be recognized whenever it occurs in the course of an exploration of the female pelvis, than a practice to be advocated as a therapeutic agent or as a surgical operation.

Nor must the subject be dismissed without a consideration of the views of those who, like Bandl, believe little in catheterization of the tubes. Several authorities have failed to pass any kind of sound into the normal tube, even during courses of special systematic experiments on adult subjects in the *post-mortem* room. With regard to the alleged patulous condition of the tubes after childbirth, it has been proved that the uterine walls are very soft and readily perforated at that period, especially close to the orifices of the tubes. In one instance there was extra-uterine gestation, and the perforation of the uterine walls close to one tube was proved at the necropsy. These last two facts are important in relation to Dr. Gönner's second case. Perforation of the uterine walls by the sound may certainly cause no ill effect. The evidence is, on the whole, in favor of perforation of the uterus being more frequent than catheterization of the tube. The latter can probably only occur when the sound is passed during some physiological process of canalization, such as Dr. Mathews Duncan suggests. Both accidents—for they should, we believe, be ever held as such—teach us to be chary about using the sound. It is not to be wondered that many authorities prefer to rely on careful bimanual palpation.—*British Medical Journal.*

GENITO-URINARY THERAPEUTICS.—The first consideration in the treatment of affections of the genito-urinary tract is the condition of the urine. Normal urine is more or less acid, but the exact degree of acidity which is physiological would be difficult to determine. It varies in different individuals, varies with the diet, the amount of physical exercise taken, and with the condition of the genito-urinary organs. The acid urine is always more or less irritating to the mucous membrane in all acute or inflammatory affections of the genito-urinary apparatus, and it is the correction of this acidity that chiefly demands our attention. In every case of genito-urinary disease in which there exists irritation or inflammation, the first indication is to neutralize the normal acidity of the urine, or better, to make it slightly alkaline, if possible, by internal medication, regulation of the diet, and attention to vicarious elimination of the products of retrograde metamorphosis. Neutral or faintly alkaline urine is much less irritating to the inflamed mucous membrane than the normal secretion. A very peculiar fact in connection with the consideration of the irritating properties of the urine in inflammatory troubles of the genito-urinary tract is, that even in those chronic cases of cystitis in which the voided urine is strongly ammoniacal, alkaline remedies are beneficial. The acid urine, as it comes down from the kidneys, irritates the bladder; the excessive secretion of mucus thereby induced produces fermentation of the urine, and this fermentation results in ammoniacal decomposition. Thus the primary source of the irritation is the acid urine.

It produces irritation of the mucous membrane, and thereby enhances the existing inflammation and excessive secretion, this being followed by urinary decomposition. The primal indication therefore is to give proper remedies to lessen acidity, and thus allay the irritation and inflammation. There are various medicinal agents that act upon the urine and render it alkaline, the best of these being the citrate and acetate of potassium. These combinations of alkaline salts with the vegetable acids are especially useful for producing alkalinity of the urine in the surgical diseases of the genito-urinary organs, or, at least, neutralizing its acidity, and may be given in doses of from ten to twenty grains three to five times daily.

Another important consideration in reducing the acidity of the urine is attention to diet. I presume that no patient can take a non-nitrogenous diet for any length of time without causing more or less alkalinity of the urine. A typical diet, although not entirely non-nitrogenous, is bread and milk; milk is mildly alkaline in its reaction, and when taken in large quantities, providing the patient takes no meat, will produce a neutral or faintly alkaline condition of the urine. My own practice, in all inflammatory troubles of the genito-urinary tract, is to confine the patient to a strictly bread-and-milk diet; this being my first prescription in cases of gonorrhea, cystitis, prostatitis, etc. I have met with many cases of acute gonorrhea in the dispensary that I have treated exclusively by a bread-and-milk diet and the administration of the acetate of potassium, and with no other remedies than these the inflammatory symptoms have subsided quite promptly. It is my custom to give astringents or balsams in appropriate cases after the acute symptoms have begun to subside, but I would not advise treatment which is in the least apt to prove stimulating for the first week or two after the beginning of a gonorrhea, and I think that you will find that if you put all your patients with acute inflammations of the bladder or urethra upon a bread-and-milk diet, with simple diluent remedies, they will almost invariably do well. I have even seen chronic cases recover completely after the suspension of all astringent and balsamic preparations by the patient subsisting for a few weeks entirely upon bread and milk.—*Dr. G. Frank Lydston, Medical and Surgical Reporter.*

HOW TO VACCINATE.—A recent discussion by the Society of Medical Officers of Health was the occasion of statements being made which show that the want of knowledge of parents is often allowed to influence the action of the operator to the distinct detriment of the child, and, as a result, vaccination is credited with failure to sufficiently protect against smallpox, simply because it has been inefficiently performed. So far as relates to public vaccination, the Local Government Board have endeavored to raise its standard, and have, by the issue of instructions for vaccinators under contract, pointed out the proper method of the performance of the operation and the means of guarding against all risk of injury. It would be well if the profession would understand that the instructions are not less applicable to private than to public vaccinators, and that it is their duty to protect as completely as possible their patients against attack by smallpox. These instructions state definitely that at least four separate good-sized vesicles, or groups of vesicles, should be made, so that the total area of vesiculation on the same day of the week following the vaccination should be not less than half a square inch. This recommendation is based upon an experience of many years, and upon the evidence which every smallpox hospital affords, that the severity of attack by smallpox subsequent to vaccination is inversely proportionate to the number of cicatrices. It should therefore be clearly understood that any medical man vaccinating less efficiently than is here indicated is guilty of an act of injustice to the individual who has placed himself under his care for the purpose of being protected against smallpox. It can not be pleaded that vaccination of this sort exposes the patient to greater risk than a less complete performance, and every one who neglects to comply to the fullest extent with this requirement incurs a serious responsibility, which it is impossible to evade.

There are reasons for the postponement of vaccination; there are none which can justify its ill performance. Of the reasons for postponement may be mentioned those which are specifically stated in the instructions. The patient should, at the time of vaccination, be in good health, and, if an infant, should not be in any febrile state, or suffer from any irritation of the bowels or any unhealthy state of the skin, nor should he have been recently exposed to infection of measles or scarlet fever, or any chance of risk from erysipelas which may happen to prevail in or about the place of residence. There is only one circumstance under which this advice can be set aside—that is, where there is definite exposure to smallpox, when the risk of death from this disease will justify the infraction of these rules.

As to the subjects from which lymph may be taken, the instructions are equally specific. They must essentially be healthy children, of whom preferably the family history is known, and they must be absolutely free from skin disease, from any sort of sore at or about the anus or other sign of hereditary syphilis Lymph must only be taken from children vaccinated for the first time, and never from cases of revaccination; and, again, only perfect vesicles without conspicuous areola should be permitted to supply it, and lymph contaminated with blood or by running over the skin must be rejected, as well as that which is thin and watery or not clear and transparent.

The precautions against septic injury are based upon the maintenance of absolute cleanliness of instruments, of subsequent dressings, and upon, as already said, freedom from exposure to septic disease. The need for the instructions as to cleanliness has unfortunately been strongly emphasized by accidents due to neglect. Lancets, it has to be remembered, are not the only instruments which are capable of inflicting injury in this manner. Our readers will not have forgotten the calamity at Norwich which led to the instruction that ivory points and capillary tubes should not be used a second time. We are induced to dwell especially upon this recommendation for the reason that the Local Government Board have just issued a report by Dr. Airy upon a death from erysipelatous disease after vaccination, the operator having omitted to exercise the precaution which is here enjoined.—*London Lancet.*

IODIZED STARCH AS AN ANTISEPTIC.—England describes his preparation and use of this substance as follows in the American Journal of Pharmacy for April. 1887:

Apropos of the subject of antiseptics, the author was led some months ago to advocate the use of iodized starch as an addition to our rapidly growing list of these compounds. Reasoning that the antiseptic activity of iodoform and bismuth subiodide must depend, in part or wholly, upon the iodine freed in their decomposition, in contact with decomposing putrescent organic matter, it was thought that if an iodized compound, readily decomposable, was subjected to the same conditions, that it would induce the same healthful process in the latter case as well as in the former. Full experience has demonstrated the value of the theory in this instance, and iodized starch is now used daily in our hospital practice, and recognized as a valuable adjunct in certain forms of antiseptic treatment. It is applied in the same manner as other antiseptics, namely: first, washing out the wound with pure water and drying out as far as practicable; then thoroughly dusting in with iodized starch and covering the wound, even beyond its outer edges. The applications are generally made in the morning and evening.

On the removal of the dressings the absorption of the iodine is most strikingly shown. Whereas, in the central parts of the wound, where the exuding pus or matter has come in contact with the bluish black powder, the same has become wholly decolorized, and shows the white color of the starch, yet around the outer limits of the dressing, where no excretive matter has exuded, the bluish-black color remains unaffected.

Comparative trials with iodoform, subiodide of bismuth, and iodized starch have demonstrated that the latter possesses valuable antiseptic qualities as a dressing; and though it may not be superior to the first two named, yet at the same time it has occasionally succeeded where they have given unsatisfactory results.

In its preparation the pharmacopeial method, given under "Amylum Iodatum," has been followed, namely, the trituration of five parts of iodine with a small quantity of distilled water, and the gradual addition of ninety-five parts of powdered starch, until the compound has assumed a uniform bluish-black color: then dry at a temperature not exceeding 40° C. (104° F.), powder, and bottle or box.

EFFECTS OF WARM ABDOMINAL COMPRESSES. Dr. T. T. Levinson, who has been engaged in investigating the effects of warm abdominal compresses under the direction of Prof. Manassein, of St. Petersburg, finds that they distinctly promote nitrogenous change in the body, the quantity of urine passed and the amount of uric acid excreted being also increased, as well as the assimilation of the nitrogenous elements by the body.—*London Lancet.*

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. III. SATURDAY, JUNE 25, 1887. No. 13.

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H. A. COTTELL, M. D., - - - Editors.
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A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

Books for review, and all communications relating to the columns of the journal, should be addressed to the EDITORS OF THE AMERICAN PRACTITIONER AND NEWS, Louisville, Ky.

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THE KENTUCKY STATE MEDICAL SOCIETY.

The late meeting of the Kentucky State Medical Society, while not as numerously attended as could have been desired, was, all things considered, a fair success. The profession of the Western Reserve seemed to appreciate the possible ill effects that the appointment of the meeting in so remote a part of the State might have on the attendance, and met it by turning out in numbers and preparation that did them credit.

There was no lack in papers of good quality, and the discussions were well ordered and to the point. The President exerted himself to put through the business with unusual dispatch.

The good citizens of Paducah vied with each other in extending the hospitalities of the city to the visiting physicians.

The public reception accorded the members was well attended by the beauty and wit of the city, who accentuated the general welcome. The sessions were fairly well attended, but as the Opera Hall in which they were held admitted much sunshine and little air, the heat was oppressive.

The mistake was again made of fixing the next meeting of the Society in the heat of summer. July is no proper time for the meeting of a State Medical Society in Kentucky. It is a busy season with the doctors, the heat is oppressive, and the attendance is never likely to be good. The social features of a watering place should be to a scientific body of men no inducement. One who attends to the scientific business of a meeting crowded with work has little time to take part in *fetes* and dances, and certainly a man who values his time has something better to do than to stand and look on at what might otherwise be very acceptable amusement.

In the election of President the Society has made an excellent choice. From Dr. Brooks can be expected perfect fairness in the exercise of the office with which he has been honored. In the rapid march of the medical science, our State Society must keep an eye single to the purpose of scientific advancement if it would maintain a creditable rank in the army of progress.

IS ANTISEPTIC MEDICINE A POSSIBILITY?

"Is it true," says the Journal of the American Medical Association, "that any thing that will destroy microbes must necessarily also destroy the cells of living body tissue? Do we not know already that different microbes are differently affected by so-called germicides and by different agents? And do we not certainly see such things in relation to creatures of a higher plane? Why should we assert positively that whatever will kill germs must destroy living body cells, when we know that parasites of a higher order can be destroyed and expelled from the body without injury to the patient?"

Antiseptic surgery and antiseptic medicine are placed altogether on different bases. We believe that whatever will kill the microbe will kill the body tissue, because it is the common experience so far, and also on the ground that the lower the position of an organism in the scale of life, the more tenacious of life is the individual. True enough, a tapeworm may be killed in the intestine, various parasites on the skin, and even acari beneath the skin; but is it not obvious that the parasite is saturated with the poison to an extent not approached by the living body tissues? Let some patient take enough corrosive sublimate into his blood to destroy the pediculus pubis, and he will furnish a valid argument in line with the reasoning of the Journal of the Association.

An example remotely suggestive of the desired action is that of pyrethrum, or insect powder, and the action of opium on pigeons might possibly point to a similar result. But in these cases it may be that the tissues of the animals refractory to such poisons are not exempt from injury, but that the poison is destroyed by the digestive organs, and that the tissues are thus protected. We have no right to say that it is impossible to find a medicament of the kind desired, but we can safely say that we have not made a single step in that direction.

Notes and Queries.

BERGEON'S TREATMENT OF PHTHISIS.—Dr. G. A. Heron writes to the British Medical Journal (May 12, 1887): My study of Bergeon's treatment was commenced in October of last year, and was chiefly conducted in my wards in the City of London Hospital for Chest Diseases. The cases I selected were certainly tubercular, as was shown by the physical signs of lung disease, and the presence in the sputum of each patient of the tubercle bacillus. As regards the kind of case selected, it was of the type in which fever was not high, the urine free from albumen, and expectoration was moderately copious.

In not one single instance in which this treatment was carried out under my supervision was there the slightest evidence of any permanent good result having been achieved. Beyond a diminution of the amount of expectoration, an occasional lessening of the cough, and an unimportant lowering of the temperature, there was no evidence of any benefit having been derived from Bergeon's treatment in these cases of mine. As those results can be secured by means less unpleasant to the patient than Bergeon's method, I have ceased to employ it in the treatment of tubercular disease of the lungs.

No one who is acquainted with the history, including the fate, of the various drugs which, in times past and present, have been highly recommended for the curative treatment of tubercular disease of the lungs, would be at all surprised to hear that restoration to health from that condition of disease had occurred while the patient was undergoing Bergeon's system of treatment. I doubt whether any system of drug-treatment ever yet extensively tried in the attempt to combat this terrible disease has not, at some period of its history, been rushed into fashion by the publication of wonderful recoveries from consumption said to have been owing to its employment.

I have no doubt that these records are, as a rule, strictly accurate in every detail, excepting the not unimportant one of ascribing the good result to the use of this or that drug. That tubercular lung disease occasionally ends in arrest of the disease and restoration of the patient to good health is a fact well known to every man whose experience of that disease is extensive.

That any drug can be relied upon to produce those happy results is, I venture to say, a proposition which to-day would receive practically no support from those who have a sufficiently large experience in the treatment of tubercular lung-disease to entitle them to speak upon the subject with some amount of confidence.

MEDICINE AND MEDICINE MEN.—In answer to many calls for the number of the AMERICAN PRACTITIONER AND NEWS containing Dr. Godfrey's address, delivered at the annual banquet of the Louisville Medical Society, we are sorry to say that the edition is exhausted.

The poem, however, is now published in book form, and is on sale at John P. Morton & Co's. The price is twenty-five cents per copy.

TENERIFFE AS A HEALTH RESORT.—Mr. Ernest Hart, in the latest of his charming letters to the British Medical Journal, entitled, "A Winter Trip to the Fortunate Islands," writes:

Medically, Teneriffe is, of course, peculiarly suited to that important and numerous class of invalids who suffer from affections of the lungs and of the air-passages. I saw some very remarkable cases of cure, and heard of many others well authenticated. The prettiest villa in the place belongs to the widow of an English physician who came there to die forty years ago, and who lived for thirty-five years afterward, a happy, healthy man, who long overcame all traces of advanced lung disease, which brought him to Teneriffe. He died only five years since.

One lady, who was anxious to give me all the details of her case, had suffered repeated attacks of hemoptysis, with laryngeal ulceration. She had been treated by eminent physicians in the capitals of Europe, and had sojourned at Palermo and on the Riviera for two seasons. She reached Orotava unable to walk, feeble, and greatly reduced in weight. She had spent six months there, and was now moving about freely, enjoying her life. The laryngeal ulceration had healed; her voice was normal; she had gained largely in weight, and was rapidly advancing to convalescence. She said to me: "I have tried every climate in the world, but I have never found any thing which deserved to be called a climate until I came to Orotava." She wisely intends staying there for three years. Other and hardly less remarkable cases came under my notice of patients convalescing in various stages of phthisis, Bright's disease, and diabetes. Some had recently been resident in Madeira, and all were alike emphatic in their praises of the delights of the scenery, the comforts, and the perfection of the climate of Orotava.

COFFEE TO DISGUISE THE ODOR OF IODOFORM.—Dr. Richard Neale writes (British Medical Journal): Valuable as coffee, when freshly ground, has proved in disguising the odor of iodoform, it has the following disadvantages: (1) It is only for a limited period that its effects last; and (2) it is very difficult to grind the coffee so fine as to prevent the grains irritating a sore part; and especially is this felt if the iodoform be used in the form of an ointment. I have found that by macerating the coffee in hot lard or vaseline, all the deodorizing powers are absorbed by and retained in the vehicle employed, and a perfectly smooth, inodorous, and unirritating ointment can be prepared.

COMPENSATION FOR DEFECTIVE DRAINS.—In the Glasgow Sheriff Court, on May 13th, £150 was awarded a tenant from his landlord as compensation for loss sustained by him through the defective drainage of the house he occupied. The tenant had notified the insanitary condition of the house to the landlord, who took no proper steps to remedy it. The death of one child of the tenant and the serious illness of others were said to be due to the unhealthy condition of the house. On this account the sheriff awarded large damages, found that the tenant was entitled under the circumstances to leave the house, and ordered the rent, which he had consigned, to be returned to him.—*British Medical Journal.*

TYPHOID FEVER—REPEATED ATTACKS OF THE DISEASE IN THE SAME PERSON.—The Switzerland correspondent of the British Medical Journal writes:

Prof. H. Eichhorst, of Zurich, relates the case of a woman who had three attacks of typhoid fever: one in 1882, another in 1884, and a third in 1886. A similar case, occurring in the person of a trained nurse, is mentioned by Dr. Hermann Mueller, who, moreover, himself passed through four distinct attacks of the disease; one of these was severe, but the others were only *typhus levissimus.* Dr. Mueller's two brothers had each two severe attacks of typhoid fever in the course of a year; one of them succumbed to a second attack.

Two boys who had been bitten by a mad dog in the neighborhood of Thurles, Ireland, were recently sent to Paris for treatment by M. Pasteur. One returned cured, but a telegram from Paris announces the death of the other.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. IV. [NEW SERIES.] LOUISVILLE, KY., JULY 9, 1887. NO. 1.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

THE PREVENTIVE TREATMENT OF TUBERCULOSIS.*

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The frequency of this disease, the great and often prolonged suffering it entails, its destructiveness to life, the often absolute hopelessness of all remedial resources, all incite us to a study of the laws which govern its propagation, and of measures to prevent its extension.

The same reasons which impel individuals and communities to vigorous exertions for stamping out smallpox, for protection against cholera, yellow fever, diphtheria, and other infectious diseases, demand equally earnest efforts toward lessening the frequency and mortality of tuberculosis.

Efficient preventive treatment of the disease rests upon the recognition of certain essential facts in its natural history, viz:

1. Tuberculosis is an infectious disease, dependent upon the absorption of a specific virus, now known to be the bacillus tuberculosis.

This view was first published by Buhl in 1856, although he had entertained it for several years prior to that date. It was resisted for a long time and obstinately combated by those who, being swayed by prevalent pathological theories, shut their eyes to the teachings of clinical observations. These observations occasionally were so striking and were related with such clearness and force as to startle, even if they did not convince, their incredulous readers.

Koch's discovery of the bacillus tuberculosis, first published in Berlin *Medicin. Wochenschrift*, April 10, 1882, was destined to put an end to doubt on this question. At the present time few physicians would deny the truth of his discovery, although the views of the nature of the disease which necessarily arise from its acceptance are not generally acted upon save for the purpose of diagnosis. The specific nature of tuberculosis, first advocated by Buhl thirty years ago, is then an established fact and can not safely be ignored in our dealings, as physicians, with tuberculous patients, still less should we, as guardians of the public health, allow the communities in which we live to remain uninformed on a subject of such practical, nay vital, importance.

2. The bacillus tuberculosis requires a peculiar soil as an indispensable condition of its life and multiplication within another living organism. It is an irritant of but slight intensity, hence the ordinarily slow progress of the disease to which it gives rise, so different from the acuteness of infective inflammations in general.

The fact that an individual readily becomes infected by the disease is indicated by the term "susceptibility," and simply means that his organism furnishes a favorable soil for the growth and propagation of the tubercle bacillus. When, on the other hand, in spite of frequent exposure to infection, and close and prolonged contact with infected persons, an individual nevertheless remains healthy, or at least does not contract the disease, he is possessed of what has been designated as "resistance." This, after all, simply expresses the fact that his organism does not furnish to the bacillus the soil which the laws of its being demand.

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* Read at the June meeting of the Kentucky State Medical Society.

These opposite states, "susceptibility," or "receptivity," as Jaccoud has called it, and "resistance," present us with an explanation why some readily contract tuberculosis on apparently slight exposure while others seem perfectly proof against it, even under the action of strongest provocations.

It is difficult, perhaps impossible, to define exactly what constitutes this condition or state of "susceptibility" or "receptivity" to the action of the germ of tuberculosis. Our knowledge enables us to declare that it may be "congenital" or "acquired."

The children of phthisical and tuberculous parents are very susceptible to tuberculosis, and the same is also true of those whose parents were syphilitic. Malignant disease in the parents induces susceptibility to tuberculosis in the offspring. Christison, of Edinboro, remarked many years ago that "the malignant diseases belong to the scrofulous constitution. Consumption in early life and malignant disease at a later age seem not infrequent in the same family." The offspring of consanguineous marriages, it is conceded, exhibit marked susceptibility. Age also modifies, if it does not create susceptibility; and Pollock has well remarked that "phthisis, notwithstanding its prevalence at all periods of life, appears to attach itself remarkably to the age of growth and to the age of decay."

However, the age at which susceptibility is most intense is during the two decades between twenty and forty. It diminishes, but does not cease, after forty. According to Brinton, half the danger is over at this age, and at fifty three fourths of the danger in males and four fifths in females.

It is important to bear in mind that the degree of susceptibility varies in the same individual at different periods. Acquired susceptibility to tubercular infection is often the outcome of a combination or succession of agencies.

Alcoholic and sexual excesses, especially when indulged in early youth, before the organism is so far matured as to bear well even a moderate gratification of these appetites, seem to play an active part in its production. Certain other acute infectious diseases, for example, measles and typhoid fever, often enough develop a marked receptivity to this disease; and the same may be said of pneumonia, pleurisy, pertussis, smallpox, scarlet fever. and diphtheria.

There are occupations of life which, as Pollock says, prepare the field for the seeds of the disease to be sown by other influences, but which are not of themselves direct producers of tubercle.

I subjoin his table of occupations, showing the proportion yielded by each in the causation of pulmonary tuberculosis.

Table showing the occupations of 5,627 persons of both sexes affected by phthisis:

MALES.

Bakers	64
Book-binders	17
Bricklayers	109
Butchers	3
Carpenters	295
Clerks and shopmen	394
Coachmen	211
Gardeners	82
Laborers	539
Mechanics	176
Painters	105
Printers	103
Publicans	46
Railway	38
Sailors and watermen	74
Servants	285
Shoemakers	171
Soldiers and police	103
Smiths	89
Teachers	42
Tailors	145
Weavers	11
At Home	63
Various	49
Total	3,214

FEMALES.

Servants	984
Domestics	447
Milliners	397
Laundresses	77
Governesses, etc	80
Other trades	150
At home	278
Total	2,413

Overcrowding in ill-ventilated chambers, whether by day in the workshop or office, or at night in bedroom or dormitory, develops a marked degree of susceptibility, and in those congenitally susceptible establishes an intense receptivity to tuberculous infection.

The waste of vital powers, no matter how produced, whether by poverty and want, which surely accomplish this result, or by self-assumed privations, which far less actively tend in this direction; whether it be by overwork in the race for wealth and fame, or by overexcitement and fatigue in the votaries of fashion, consuming life and strength in vain and dangerous pursuits in overheated ball-rooms; whether it be the weary tasks of those unknown toilers, the ants of our social structure, who work in dark and damp places, by gas or by lamp-light, in back room or cellar, but never in the fresh, pure air or in the light of the sun. The waste of vital power, no matter how produced, is a factor in acquired susceptibility whose agency appears more potent the more closely we scrutinize its destructive effects.

3. Tuberculosis is a disease communicable from man to man.

The realization of this fact is of such supreme importance that it can not be overrated. All our exertions will be unavailing until the laity become thoroughly imbued with the knowledge that "consumption" may be induced in a previously healthy person by intimate and protracted converse with one having the disease, and that this result is strongly promoted by the conditions I have just mentioned.

Clinical observation had established the communicability of tuberculosis long before the discovery of its cause.

Even prior to the publication of Buhl's view (which he had then entertained for several years), that tuberculosis is an infectious disease resulting from the absorption of a specific virus, other physicians in different parts of the world had arrived at the same conclusions. Impartial clinical observations continued to accumulate, and of such character and from such sources that their significance could not fail to be perceived.

In 1875 Flindt, of Denmark, published the following interesting observation:

In the autumn of 1872 an artisan, his wife, and five children (four sons between the ages of three and a half and fourteen years, and a daughter fifteen years old), went to live in a village in Denmark, where they occupied a small room with another family, consisting of a man, his wife, and a grown-up son, both affected with febrile phthisis. They remained in this crowded and confined abode, in which the air was rendered poisonous by the presence of the patients, until January 3, 1873, when they left the place for a more healthy dwelling. Before this, however, at the time of Christmas, the five children, who had been previously in good health, became affected by scrofula, suffered from pulmonary disease; and the evolution of the disease was so rapid that they all died after the respective periods of seven weeks, three months and a half, and seven months. The daughter, whose age was fifteen years, and who had only remained one day in the infected room, was attacked like her brothers, and it was her death which occurred at the end of three months and a half. An autopsy was made in one case, that of the youngest boy, who lived for seven months. Several caverns were found in the right lung, numerous foci of yellow infiltration in the spleen, and tubercular ulceration in the small intestine, while the mesenteric glands were swollen and in a state of of caseous degeneration.

In 1878 Reich published a contribution which is perhaps even more complete and convincing:

At Neuenburg, a village with thirteen hundred inhabitants, two midwives practiced their profession, dividing in almost equal proportions the obstetric practice of the place. In the winter of 1874 one of them was attacked with phthisis, and died in 1876 from the effects of the disease. Of the infants whose birth she had attended between April 1, 1875, and May 10, 1876, ten died of tubercular meningitis, July 11, 1875, and September 29, 1876. Not one of these ten children was under the influence of hereditary disposition. In the practice of the other midwife, during the same period, not a single child was affected with any form of tubercular disease. The first midwife was in the habit of removing by aspiration the mucous products which obstruct the *primæ viæ* in newly-born infants, and when the slightest degree of asphyxia occurred direct insufflation was practiced. It should be added that tubercular meningitis is not endemic at Neuenberg, where, in fact, it but rarely occurs, and that, during the period between 1866 and 1874, of ninety-two children who died in the first year of their life, Reich observed but two cases of this disease, while in 1877, of ten children who died at this age, he observed but one case, and that in an infant whose parents suffered from tuberculosis.

Dr. L. Brühn, in 1880, reported a number of cases illustrating the communicability of tuberculosis. His article was translated by me, and it was published, in 1880, in the Louisville Medical Herald, then edited by Prof. D. S. Reynolds, viz:

A tuberculous man married a woman of healthy family. The husband died. The wife became tuberculous; so did her sister, who had lived with them during the husband's illness. This sister was subsequently married to a robust man of very healthy family. He became afflicted with tuberculosis, and his niece, who had also lived a considerable time in the house with them. One of their children died of tubercular meningitis; two have marked signs of pulmonary tuberculosis, one only being in good health at the time of writing.

The servant girl who had nursed the first-mentioned man's wife in her last illness became tuberculous, went back to her own home and died. Her sister became infected by her. Both their parents attained a very high age, and there never had been any consumption in the family.

It is hardly possible to furnish more striking and direct clinical evidence on any subject than this.

Dr. Wm. Bunce, of Oberlin, Ohio, furnishes some very convincing observations in the Medical Age for June 10, 1887. They were made by him about eight years ago:

A strong, healthy family, consisting of father, mother, five boys and five girls, all entirely free from any tendency, hereditary or acquired, to any disease whatever.

One of the girls, unmarried, aged twenty-four, went to an adjoining town to teach in a union school, in place of a lady teacher sick with a bad cough—which proved to be due to tuberculosis. In addition to her duties as a teacher, she assumed the care of this sick teacher. In order to allay the violent paroxysms of coughing to which this sick girl was subject, some sort of a powder had been used in the throat by means of an insufflator. As a substitute for this device, the nurse placed the powder in a glass tube, from which she blew it directly into her throat with her own mouth, and thus inhaled directly the breath, often during a paroxysm of coughing.

In the course of a few weeks she herself was taken with a severe cough, compelling her to give up her school. She came home and placed herself under my care. A careful examination of the lungs revealed a slight consolidation just below the left clavicle, with an inflamed condition of the throat, strongly suggestive of a deposition of miliary tubercle, and I attribute the condition to contagion.

After a thorough course of local and constitutional treatment, in the course of six months health was apparently restored. Some three years afterward, however, following a severe cold, a cavity formed in the left lung, and after lingering along for nearly a year she died of consumption.

While at home during her first sickness, and while under my care, a younger sister, aged twenty-two, and single, who had entire care of her, used on her throat, without my knowledge, the powder above referred to, by blowing it into the throat, in the same way as had been done in the case of the sick teacher, often during a violent fit of coughing. The result was an infection precisely similar to that of her sister, but, unlike her sister, her disease continued unchecked, and she died in a little less than a year of consumption.

A still younger sister, aged eighteen, took the entire care of the last patient, and became in the course of a few weeks infected in the same way, and died also of tuberculosis.

During this daughter's sickness I accidentally saw the mother in the act of blowing with her mouth through a glass tube some of the powder into her sick daughter's throat, in order to allay a violent fit of coughing. I immediately stopped her, telling her the danger of such a course, and that I supposed they always used a powder blower which I had provided for that purpose, and was horrified to find they had failed to use it.

I had previously ordered the free use of disinfectants, and that all excerctions, with the sputa, should be buried.

The mother had already become infected, for she sickened and died with the same intensely congested throat and dreadful paroxysms of coughing, ending in destruction of lung tissue and death from consumption.

After the mother's sickness the two elder sisters came home and had the care of the mother and the household, but were careful not to inhale the breath, and followed out my instructions in reference to the local applications to the throat. They both escaped infection, and are well to day, as are also the father and two brothers, none of them having suffered from a cough (except from a slight cold), and have always enjoyed the best of health.

The communicability of tuberculosis has also been clearly demonstrated by experimental researches, so varied and so often repeated by scientific men in different parts of the world that I shall content myself with a very brief mention of a few of them.

The first demonstration was that of Villemin, who, in 1865, proved that tuberculosis can be produced by inoculation with tuberculous matter.

Villemin and Chauveau have shown that the ingestion of phthisical sputa has been followed by the same consequences as when tubercular matter had been inoculated.

Klebs has also made some researches as to the effects produced by the absorption of milk supplied by cows affected with phthisis. He found that such milk is capable of producing tuberculosis in the different animals. The first effect of such tuberculosis is the occurrence of gastro-intestinal catarrh; this is followed by a tubercular affection of the mesenteric glands, then by tuberculosis of the liver and spleen, and lastly by diffuse miliary tuberculosis of the lungs.

In 1880 Dr. F. Eklund, of Stockholm, read an able and valuable address before the Association of Swedish Physicians on Miasmatic, Contagious Phthisis and Chronic Pneumonia. Soon after its publication a translation in abstract was made of it by me, which appeared in the Louisville Medical Herald. In this address the author called attention to the frequency with which attendants in military barracks and sick-rooms became affected with phthisis. In barracks the consumptive and the healthy occupy the same berths indiscriminately. The floors are soiled with phthisical sputa, which after desiccation become diffused in the air in sweeping, and find entrance to the lungs by respiration. Here the micro-organisms acquire a permanent hold all the more readily because their tenacity of life is very great, and these soldiers are often debilitated from remaining day and night in barracks and guard-rooms where the air is very impure, and also from other causes.

The infectious nature of tuberculosis being admitted, the question naturally presents itself, in what manner is the infection conveyed? This is not only interesting from a scientific stand-point, but it has a practical bearing on the prophylaxis of the disease.

1. Tuberculosis may be contracted by breathing air containing the bacilli.

This was experimentally determined by Tappeiner in 1877 and 1878. With the sputa obtained from phthisical patients and water, he prepared an emulsion, and during an hour and a half each day dogs were made to inhale this liquid in an atomized pulverized state. These animals were chosen on account of their slight tendency to become affected with tuberculosis. Eleven animals were treated in this manner during a length of time varying from three to six weeks. During the time of observation the animals preserved a healthy appearance and did not lose weight, but at the autopsy they were all found, with the exception of one doubtful case, to be affected with miliary tuberculosis in both lungs, while in the greater number granular deposits were also found in the kidneys, liver, and spleen. On the evening of the day preceding that of the autopsy Tappeiner mixed finely pulverized carmine with the liquid inhaled, and numerous stains were found at the surface of both lungs.

2. By the ingestion of food tainted by the

presence of tubercle bacilli, viz., milk supplied by tuberculous cows, meat of animals which had tuberculosis, etc.

3. By contact of a raw surface, such as a wound or ulcer with tuberculous secretions, or other substances containing tuberculous materials.

4. By inoculation with tuberculous materials.

The first mode of infection is doubtless the most common and perhaps the most certain. Its actual occurrence has, I think, been satisfactorily proven by the well-authenticated observations quoted above.

The possibility of the second mode of infection is illustrated by the researches of Klebs mentioned above.

Foote, in 1877, and Kommercil and Lochmann, 1878, proclaimed the possible transmission of the disease by the milk of cows affected by tuberculosis. Thesen von As, a distinguished veterinary surgeon, made numerous experiments to determine this question which always gave positive results.

Pigs, lambs, rabbits, and guinea-pigs have been successfully infected with milk from tuberculous cows. Infection was also produced by feeding animals with portions of the affected tissues, removed after the cows had been slaughtered, and by inoculating them beneath the skin with such materials.

B. Bang and Von Storch recently made some investigations to test the infectiousness of tuberculous milk, an abstract of which was read by me before the Louisville Clinical Society some time ago; the results obtained by them are positive and significant.

Dr. Creighton, quoted by Fagge, recorded several cases which he considered that the disease had been derived from the cow.

Fagge himself called attention to the frequency of mesenteric disease in children in whom milk is an important article of diet. But he also suggested that so far no one has observed the epidemic prevalence of the disease in inmates of nursing establishments, or among the children of customers of any particular dairyman. However, Dr. Spencer, of Clifton, England, reported the following history in 1877: More than twenty boys in an industrial school fell ill of what was supposed to be enteric fever. Most of them recovered, but four died. In each fatal case the organs were found to be full of tubercles. But it must be observed that in every instance caseation of the bronchial glands was present which could not have occurred within the duration of the illness of the boys, this being only three or four weeks.

More extended and careful observation may prove the third mode of infection to be of more frequent occurrence than facts already in our possession seem to indicate. So far it appears to be rare, but that the disease actually may be contracted by infection of a raw surface is quite evident to me.

Such a case is alluded to in a recent number of *Nord. Med. Ark.*, as having been reported by Dr. Tcherning.

Dr. Holst, in *Tidskrift för prakt. Medic.*, 5te H., 1885, relates the history of a man who presented a tuberculous glandular enlargement in the axilla about the size of an apple, and containing rather numerous tubercle bacilli. This growth developed after the patient had been suffering for a considerable time from atonic ulcerations on the fingers. It is true that tubercle bacilli were not found in these ulcers, but they had already been treated for a considerable time with salves, plasters, cauterization, and with the curette, when the search for bacilli was undertaken, and it is but reasonable to suppose that these measures may have contributed toward the disappearance of baccilli from the sores. The observer regarded it as probable that the patient, who for a long time had nursed consumptives in various hospitals, had become infected through the sores upon his fingers.

The following case which occurred in my hospital practice is equally, if not even more illustrative of this mode of origin: The patient was a male, colored, aged forty-five. Family history good. Father and mother long-lived. His own health uniformly good until March, 1886, when he had an abscess over the sternum. For this he sought relief at the Louisville City Hospital, where it was found to be connected with necrosis of the bone. The diseased portions were removed by operation, but the wound never healed. While in the hospital he was assigned a bed, and passed most of his time in the ward set aside for colored males. Surgical and medical cases occupy the same ward, and tuberculosis being so very common a disease among the negro race, a number of patients in different stages of this disease may almost always be found in it. A number of cuspidors containing tubercular sputa are generally standing about; desiccating or desiccated expectorated matter is often to be found on clothing, bedding, and floor, and the air of this ward may be assumed to be swarming with bacilli.

After having spent several weeks in this atmosphere, he left for the country, where he worked until his health failed and he could no longer earn a living.

In October he had already lost flesh, and a dry, hard cough set in; later it was attended with a white frothy expectoration, and finally it became loose and the matter raised was purulent. There had been no hemoptysis, and fever was for the first time observed about the middle of December. Night-sweats had previously occurred.

Condition on the 17th of December, 1886: Voice is husky and hoarse, he has cough, expectoration purulent, appetite is low, and he vomits occasionally; bowels regular; pulse 90; respiration 36; temperature 102.5. He has lost much flesh and is quite emaciated.

On the chest is a keloid growth and several irregular open sores. There is dullness in the right subclavicular region, dullness and marked elevation of pitch in the left corresponding space, decided dullness in the right interscapular region.

Anteriorly in right side there is circumscribed cavernous breathing, posteriorly on right side there is bronchial breathing, anteriorly on left side there is cavernous breathing.

The sputa, examined by my friend and colleague, Prof. H. A. Cottell, contained masses of the bacillus tuberculosis. No bacilli could be found in the secretion from the sores on the chest, which may be accounted for by the fact that they had for a long time been subjected to local treatment of various kinds.

This case seems to me to present an array of facts whose close relation can hardly be doubted. For my own part I could satisfactorily account for the tubercular disease in no other way than by assuming that the patient became infected through the open sores upon the chest.

4. The fourth method can hardly come into operation save in experimental investigations, and hence need not occupy us here.

A case of probable inoculation tuberculosis in man was reported by Dr. O. Thesen (*Tidskrift för Prak. Med.*, 1886).

The patient was the daughter of a farmer, aged twenty-eight, and of healthy stock. In the middle of May, 1886, a splinter of wood became lodged under her right thumb-nail, which had given rise to a small abscess by the middle of June, which was opened with the knife.

A short time thereafter were observed a number of small, yellowish granulations on the exposed matrix of the nail, and a considerably enlarged gland was found at the elbow. This gland, having been extirpated, was subjected to microscopical examination, and was demonstrated to have the structure of tubercle with tubercle bacilli.

Examination of the sore was subsequently undertaken, but with negative results. This failure to find the bacilli was believed to be due to the local applications which had previously been made.

Dr. T. nevertheless believed the sore to have been the point at which the invasion of tubercle bacilli had occurred.

In concluding this part of the subject particular attention is invited to the following points:

1. The more close, intimate, and protracted the communication between tuberculous patients and healthy individuals, the more likely it is that infection of the latter will take place.

2. A narrow and confined breathing space and insufficient light and ventilation, together with the proportion of infecting material present in the air and food, must in some degree influence the certainty and promptness of infection.

The facts adduced in the preceding pages clearly point the direction in which the medical profession must work in order to lessen the frightful loss of life and the incalculable suffering caused by tuberculosis.

Even the natural enthusiasm over newly-found remedies, or novel methods of applying medicinal agents already known, must not be permitted to blind us to the all-important fact that to cure the predisposition to tuberculosis is the chief dependence in stamping out, or even lessening the ravages of the disease.

The injurious effects of consanguineous marriages are too well known to need more than passing mention. There can be no doubt that the offspring of such a union is likely to have a strong predisposition to tuberculosis as well as to some other diseases. Marriages between persons of near consanguinity should therefore be discouraged.

Tuberculous persons ought to be prohibited from marrying at all, and their intermarrying should be resisted as far as possible because certain to engender in the offspring an intense susceptibility to the disease.

It is also of utmost importance that tuberculous mothers should not be permitted to suckle their infants. This can not be too strongly insisted upon. It may appear cruel to deprive a mother of this sweet privilege of maternity, so highly prized by all good women; yet the child also has rights which must not be disregarded. Perhaps a more cruel injury could hardly be inflicted upon an innocent, helpless child than to ingraft upon its young life a strong predisposition to tuberculosis, which would be almost the necessary consequence of its being suckled by a tuberculous mother. Nor should it be forgotten that under such circumstances the danger of direct infection is far from impossible or remote.

The education of the children of tuberculous patients is a very serious problem. They have inherited a strong predisposition to the disease, and it must be the object of education to rid them of this. Their management should be directed toward hardening and invigorating their constitutions. They ought, by preference, to be reared in the country, and to spend a large portion of their time in outdoor pursuits. Well ventilated, sunny, and spacious sleeping apartments and the daily use of bathing are essential elements of this system. Their food should also be carefully regulated with special reference to the development of healthy and vigorous nutrition as well as a robust habit of body.

The selection of an occupation for such children, when they have reached an age to earn their own living, requires great care. Out of 3,214 cases of phthisis, whose occupations had been noted and tabulated, it was found that the ten occupations which gave the smallest number were as follows: Butchers, 3; weavers, 11; book-binders, 17; railway employes, 38; teachers, 42; publicans, 46; bakers, 64; sailors and watermen, 74; gardeners, 82; smiths, 89.

Whenever practicable, one of those occupations should be chosen which does not furnish a large percentage of consumptives, and which is not favorable to the development of the disease.

As to the climate in which such children should be reared, it may be said: that climate is best for them in which phthisis is most infrequent and which is found most beneficial to persons in whom the disease has already sprung up.

At high altitudes phthisis often becomes arrested, and among the Andes, the higher Alps, and the elevated plateaux of Mexico, Persia, and South Africa, complete immunity is approximated, though not entirely reached. The Hebrides and Faroe Islands enjoy an almost complete immunity. A residence in Colorado, Minnesota, and California may reasonably be expected to exert a marked influence in removing predisposition, at least so long as the predisposed person remains in the climate.

The writer fully appreciates the practical difficulties in the way of any one who conscientiously strives to combat the spread of this formidable malady. He often meets with opposition from the very persons he is most anxious to save. The ignorance, prejudice, and passions of his patients may be arrayed against him, and they are powerful foes. His powers are merely advisory, and he has no means of enforcing even the most important advice.

This much, however, we can all do: endeavor to enlighten the public as to the true nature of this disease, its modes of propagation, and the means to ward it off and prevent its spread.

This brings me to the concluding part of my paper, viz:

The precautions against the spreading of tuberculosis.

These measures should be instituted as early as possible.

In the home partial segregation at least can be obtained, and should be insisted upon. A tuberculous patient must not be permitted to occupy the same room with other members of the family, still less can he safely be allowed to sleep in the same bed with any one not infected with the disease.

A separate ward for consumptives should exist in every well-regulated hospital, and no such institution can be regarded as up to the requirements of medical science unless possessed of this necessary safeguard against tubercular infection.

Tuberculous patients should never be permitted to occupy beds in the general wards of a hospital, or in the dormitory of colleges, schools, or religious houses; nor should patients with tuberculosis ever be placed in the infirmaries of such establishments in common with those suffering from other diseases. These latter may be presumed, owing to their lowered vitality, to be in a state of augmented susceptibility.

Many cases of tuberculosis doubtless owe their origin to the neglect of such simple and clearly indicated precautions.

The family of one suffering from this disease should be warned against the practice of kissing, and otherwise bringing their mouths into frequent and close approximation to the patients.

The sputa and secretions ought to be received in vessels charged with a disinfectant liquid. A five-per-cent solution of carbolic acid is perhaps as serviceable as any other.

I am in the habit of employing what are known as ozonizing powders, by means of which the atmosphere of the sick-room is quickly and pleasantly purified. They are composed of equal parts of oxalic acid, permanganate of potassium, and peroxide of manganese. These are mixed dry in a plate or saucer, and water is added while stirring the mass.

The clothing and bed-clothes, so often containing desiccated sputa and charged with bacilli, are to be subjected to careful disinfection.

In view of the well-known fact that cattle are subject to tuberculosis, and that eating the flesh of animals thus diseased may induce tuberculosis in the consumer, the inspection of cattle and butcher's meat becomes a matter of paramount necessity, which no intelligent community can with safety disregard.

The possibility of infection by means of milk from tuberculous cows can not be denied, owing to the researches of Von Storch and B. Bang, already quoted in this paper, and ought to be guarded against by means of regular and authorized inspection of dairies.

It is believed that the general acceptance of the views expressed above as to the origin, nature, and modes of propagation of tuberculosis would tend very strongly toward lessening the frequency, and consequently the mortality from this formidable disease. According to Hirsch's excellent work on geographical and historical pathology, three deaths per thousand, or nearly one seventh of the total mortality, is due to this cause. In some of the larger cities the death-rate is even higher. In Vienna it is 7.7 per 1,000; in Pesth, 6.9 per 1,000; in Brussels, 5.6 per 1,000; Stockholm, 4.1 per 1,000; Munich and Glasgow, 4 per 1,000; Berlin and Dresden, 3.8 per 1,000.

In our own so peculiarly favored country the disease sweeps away thousands every year.

Surely, then, it is time that some more vigorous methods were adopted to stamp it out.

We could not undertake a work more in the spirit of the healing art, and more consonant to the most elevated philanthropy.

LOUISVILLE.

THE PERMANENT REMOVAL OF SUPERFLUOUS HAIR BY ELECTROLYSIS.*

BY I. N. BLOOM, A. B., M. D.
Dermatologist to Louisville City Hospital.

In dermatology, the development of pigmented hairs on those parts of the body where they are not wont to grow may be regarded as hypertrichosis. When they occur about the face or other parts of the body which are not covered or concealed by dress, they present a deformity which, according to its extent, is a matter of no little importance to the subject; especially is this so, from an esthetic point of view, should the sufferer be a woman.

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*Read before the Kentucky State Medical Society, at Paducah, June 16, 1887

From the bearded woman in the circus to the society lady who is rendered frantic by the constant reappearance of say some half dozen hairs upon her chin, all degrees of the deformity may be noticed, and there are few of us who do not number among our female friends one or two who is thus affected.

Nor is its influence upon bearer of slight importance. There are many women who have borne their bearded developments with resignation, because they have been told that for it there was no cure. They have of necessity been compelled to adopt the temporary measure which Duhring, as late as 1877, said was the only justifiable means at our command, viz., the razor and the depilatory powder.

But there were also many who chafed and fretted under their afflictions, and George H. Fox, in his excellent work on this subject, has cited a number of cases showing the nervous influence, often producing melancholia, upon those afflicted.

I myself have in mind the case of a Swiss girl, upon whose cheek and chin grew a beard which many a male adult might envy, who, tired of the useless trouble she had taken to conceal it, attempted suicide.

Up to 1875 the means recommended and used for the removal of hirsuties were the following: The razor; the pincette; remedies such as,

Barii sulphidi........................ ʒ ij;
Pulv. oxyd. zinci, }
Pulv. amyli........ } āā .... ʒ iij,

which was to be spread upon the skin, and scraped off after ten minutes with a dull knife; the puncture of the hair follicle with a red-hot needle, or a needle dipped in various caustics, such as carbolic acid, and of later date, the ungainly apparatus of Neumann, by which puncture was made with the needle rendered incandescent by galvanism.

None of these measures proved satisfactory. Some were temporary in the relief afforded, but the hair grew again and grew stronger. Those means which accomplished the destruction of the hair were followed by cicatrices more unsightly than the original deformity. The permanent removal of superfluous hairs was an unsolved problem to the dermatologists of all countries until, in 1875, Michel, of St. Louis, first published the result of his experience with electrolysis in cases of trichiasis and distichiasis. His friend Hardaway was the first to apply this method to hypertrichosis of other regions, and was closely followed by Piffard and George H. Fox, to which trio we are most indebted for its introduction into dermatology. Gradually these gentlemen found imitators, and the operation became known here and abroad, first in England and then on the continent; but not until 1885, or ten years after it was first introduced in America, did it take the place which has since been given it. As late as 1884 Hebra, in his ***Die krankhafte Verænderungen der Haut***, summarizes his treatment of hypertrichosis by electrolysis, after one trial, by saying he was compelled to give it up on account of the unsightly cicatrices that were produced. As Fox, from whom this is quoted, justly remarks, "this conclusion can only be due to lack of experience of the operator." Michelson, in Germany, contributed more than any other to popularize the treatment, and in France Brocq and Baratoux have in the last year or so given it its proper place.

In spite of criticisms and tardy adoption by foreign dermatologists, the operation has undergone but slight modification from the original of Michel and Hardaway.

It may be well to give here the general principles of the operation. The patient with hypertrichosis, let us say of the face, is placed in a convenient chair, facing a good light; a suitable galvanic battery is placed upon a table at her side. With the positive pole a sponge electrode is connected, and this is placed in the lap of the patient. With the negative a needle, of size and material to be discussed hereafter, is connected, and this is inserted as nearly as possible into the hair follicle. The circuit is closed by the patient grasping the sponge electrode, and, after a sufficient time has elapsed, the positive electrode is laid aside, and the needle is withdrawn. The hair is permanently destroyed, leaving no trace of its site, or a superficial scar which is as nothing in comparison with the original deformity.

This may serve as a brief and general description of the operation as first introduced and as it exists in its perfection to-day. But from the beginning there was any thing but a consensus of opinion as to detail. In viewing the literature of the subject, few writers dwell upon the fundamental principle of the operation, to remove permanently the superfluous hairs with the *least* possible force, and in a manner to produce the slightest possible disfigurement, temporary or permanent.

Too much attention, as a rule, is given to the details of the operation, instruments, etc. We find among the writers a great difference of opinion as to the kind of battery, needle, the use or omission of the lens, the number of cells required, the advisability of extracting the hair after the papilla has been destroyed, or leaving it to fall out of itself. Consequently and naturally the per cent of successful permanent removals varies with different operators.

Taking up these points separately, we notice that different writers have at different times recommended different batteries.

Pliny S. Hays (St. Louis Medical and Surgical Journal, Nov. 1881) uses from five to ten zinc carbon cells and a cambric needle, and after the circuit is closed, allows fifteen to twenty seconds to elapse before withdrawing it.

Hardaway (Philadelphia Medical Times, Feb. 14, 1880) used about eight cells, and at first a No. 13 cambric needle, but more recently a platino-iridium needle. Each hair requires but a few seconds for its removal.

George H. Fox (New York Medical Record, March 22, 1879) prefers from ten to sixteen cells of a zinc carbon battery, and and a fine flexible steel needle.

George H. Rohé uses a McIntosh battery and platino-iridium needles, twenty to forty seconds, and notes the return of about thirty-three per cent of the hairs operated upon.

Robert Amory (Boston Medical and Surgical Journal, Dec. 3, 1885) thinks a gold needle as fine as obtainable the best, and twenty seconds is sufficient to destroy the hair.

James C. White (*ibid*) thinks the battery unimportant, and such was the conclusion of the Association of American Dermatologists two years ago.

He uses the very finest jeweler's broach, or Hardaway's platino iridium needles.

We thus see a great variation in the number of cells employed, kind of needle, and success obtained. It remained for the German dermatologists to give a clue to a scientific solution of the problem, which involves all those points as well as the fundamental principles of the operation. This they accomplished by the introduction of the galvanometer.

It must have occurred to any one who has had frequent occasion to use a galvanic battery, that the electro motive force varies at different times in the same battery. Further, that batteries of the same number of cells of different kinds differ from one another, not only in the constancy, but also as to intensity of current. Ten cells of, say, a Leclanché battery, may be sufficient to-day to remove a coarse hair in ten seconds, whereas to-morrow it may fail because of a lack of constancy. It should not be forgotten that our object is to remove the hair employing the least possible force. By blindly using a certain number of cells whose combined strength is variable, we may succeed in removing the hair, but we do not know if it could have been removed with half that number of cells, leaving behind less disfigurement. With the galvanometer we measure the intensity of the current; we can obtain the intensity which we require, and which our own experience or that of others has shown to be sufficient. With the galvanometer we disregard the condition or number of cells, provided they are sufficient to produce the required electro-motive force. Whether it be measured in volts, ohms, or amperes is a matter of little importance.

In the International Congress which met in Paris in 1881, it was agreed that the current produced by a volt passing through the resistance of one ohm shall be called an ampere, and the galvanometers constructed since that time are mostly made on that basis. With such an absolute galvanometer, Lustgarten (*Wien Medizinische Wochenschrift*, Sept. 4, 1886) found that from one half to one milliamperes, from twenty to thirty seconds, sufficed in most cases to destroy the hair papilla, while Michelson's

(*Viertel Jahreschrift, fuer Dermatologie und Syphilis, Heft* 2, 1887) experience often demanded a current of three milliamperes. Baratoux (L. C.) required from five to eight milliamperes, whereas Brocq (L. C., and Journal Cut. and Genito-Urinary Diseases, January, 1877) needed from ten to twenty-five milliamperes for a period of five to thirty-five seconds.

As to these two latter, I would agree with Michelson, that there must be some mistake as to their reading of the galvanometer, were it not for the pregnant fact that the description of the severe pain attending the use of such strong currents rendered the subcutaneous injection of a solution of cocaine highly desirable.

I have used the galvanometer for several months, and beside my observations upon patients, to be spoken of hereafter, from experiments upon myself, have arrived at the following conclusions:

A current of a strength greater than seven to ten milliamperes causes such pain as to be practically unendurable.

If the needle is inserted so as to reach the bottom of the hair follicle, or so as to be sufficiently near the hair papilla, a current of a strength of three milliamperes, from twenty to thirty seconds, suffices for the destruction of the coarsest hair, and rarely will one need a current stronger than from one to two milliamperes. With a rheostat to control the current, and a galvanometer to measure it, provided one has a sufficient number of cells to produce an electro-motive force of three milliamperes, it is a matter of indifference how many extra cells are in the circuit, and what kind of cells they are.

If the battery, as does mine, contains twenty-four cells, it is best to use them all and modify the current by the rheostat, so that one cell may not be in use more than another. If, as is claimed by Amory (Treatise on Electrolysis, Wm. Wood & Co., 1886), needles of different metals present different resistances to the current, the galvanometer will nevertheless register the required number of milliamperes, if the rheostat is made to bring a greater or less resistance into play, as the case may be.

Practically I do not think there is any difference in the effect produced by a current with an electro-motive force of say three milliamperes, whether steel needles are used or gold ones of the same size. The needle should be as fine as possible, flexible, and not too short. A great deal depends upon the experience as well as the skill of the operator. When I began, I should say about fifty per cent of the hairs operated on returned. I am certain that not fifteen per cent return now. While I do not believe, with Lustgarten, that the introduction of the needle is at all comparable to the catheterization of the bladder, still with experience we learn in a measure how deep to go, and often feel the resistance offered at the bottom of the hair follicle. It is not absolulutely necessary that we reach the bottom of the hair follicle. I do not even believe we do so in the majority of cases operated upon. I have been able to convince myself of this in two cases of small hairy moles, when I paid no attention whatever to the outlet of the hairs, but inserting the needle into the mole at distances very much closer than I am accustomed to in ordinary cases, I found the hairs would come out on the slightest traction, and they, as well as the moles, were permanently removed. It is true that electrolytic action is strongest in the vicinity of the needle, yet its destructive power extends at some distance from it, and if the papilla is sufficiently near, its destruction is certain.

Given a certain amount of experience and skill, in most cases failure to permanently remove is caused by the fact that the direction of the hair on the surface gives no clue to the situation of the follicle, and hence the electrolytic action does not reach the papilla. One need only examine microscopic sections from normal hairy regions to find here and there a follicle at various angles to the shaft. Frequent epilation is apt to distort the follicle. G. Behrend gives a method by which traction on the external hair and the resultant cone produced on the skin shows the depth, strength, and direction of the follicle. I think this practically of little importance. Those hairs which grow again I operate upon a second time, and rarely has a third puncture been necessary.

The first effect of an electrolytic puncture is a slight hyperemia about the mouth of the follicle, followed by a blanching of the same.

In some cases, after a few seconds, a minute drop of foam exudes, sometimes only after the needle is withdrawn, and sometimes not at all. Formerly, when I used stronger currents, an urticarial wheal always appeared in a few moments after the operation.

Now, with a measured current, it is the exception. When the needle is withdrawn, if the papilla is destroyed, the slightest traction on the hair is sufficient to cause its removal.

The difference in traction is easily appreciable to the experienced operator, and by it alone he can tell at once almost to a certainty whether or no the hair papilla has been destroyed. I feel certain that I can tell within a few per cent upon how many hairs I shall have to operate again. Therefore (and contrary to some few writers upon the subject), I extract the hair after withdrawing the needle, instead of allowing it to fall out of itself.

After the removal of the hair there is usually a slight area of redness. Seldom is any pain felt if the punctures are not made too closely together. Except in special cases, I never operate on two hairs situated nearer together than two lines. The urticarial wheal which may result, and which differs from ordinary wheals in its minuteness and regular circular outline, may last from a few minutes to a few hours. Early in my experience, when I used stronger currents, I not unusually found superficial pustules following the operation. It still happens occasionally that pustules follow even very weak currents in cases which are not to be foretold. They are idiosyncracies of the skin for which I have no explanation; just so I have noticed in some cases minute red spots, which remain from one to three weeks after the operation, gradually fading away, and leaving no trace behind.

On my own hand and arm a current of one half milliampere leaves behind a minute red spot which is visible for a fortnight.

In the vast majority of cases, however, two or three days after the operation not a trace remains. One must observe carefully, and by oblique light, to discover the minute cup-like depressions around the mouth of the follicle of the hair operated upon. The traces left after the most unsuccessful cases I operated upon, that is, the first ones, were not comparable to the original deformity.

While it is true slight scarring is apt to follow unnecessarily strong currents, I quite agree with James C. White (Boston Medical and Surgical Journal, December 3, 1885), "that a slight amount of scar formation occurs in a certain proportion of cases independent of the degree of inflammation produced by the operator, inevitable in some measure in every case, and not to be foretold in any instance."

I have been surprised at the estimates of pain given by different writers which the operation is said to produce. There is always a sharp, burning, stinging sensation, more perceptible at first. I have yet to see an adult patient who was restrained from further submission on account of it.

To me the use of cocaine seems absurd when currents not stronger than three milliamperes are used. A tolerance is established in all cases, that is, after the first few punctures the patient knows what is to be expected, and bears it patiently and usually unflinchingly. No one has ever fainted away among my patients, but one or two have complained of dizziness. The pain varies with the site of the operation; of course, besides the site, individual susceptiblity to pain is noticeable in different patients. On the chin, and, according to Woody (American Practitioner and News, July 24, 1886), on the upper lip, it is more acute and more apt to be complained of than elsewhere. On the chin it is exceedingly difficult to operate. On the neck I have never operated, but, according to Fox, it requires a longer time to destroy the hairs there than elsewhere (New York Medical Record, March, 1882).

I have never used a lens to assist me in the operation, as does Piffard and others. Michelson suggests that its use might be beneficial to hypermetropic operators, and for such it would be better, he suggests, not to operate at all. I seldom destroy more than thirty hairs at a sitting of one hour's duration. J. A. Bach, of Milwaukee, reports having removed more than two thousand hairs in nine sittings. Fox has removed two hundred at one sitting. At one time I removed seventy-five, and had to cease because I could not trust my eyes for more.

Of the results obtained, the best I have seen reported are those of Amory, who twice removed fifty hairs, of which not one returned. Of thirty-five hundred removed in several sittings, only five per cent returned, twenty seconds being the average time required for the removal of a single hair. I usually count thirty slowly before withdrawing the needle.

LOUISVILLE.

WOUNDS, THEIR ASEPTIC AND ANTISEPTIC MANAGEMENT.*

BY DAVID PRINCE, M. D.

a. Sterilized Atmosphere. To render the air aseptic, it may be kept still as in a closed box, or it may be strained through something which will hold the floating particles, or it may be carried for a considerable distance along some plane surface lined with glycerine or other substance to which the particles will stick.

The settling process is inapplicable for surgical purposes, because, however perfectly the floating material may have settled to the floor, the use of a room must disturb the air and bring a portion of the dust up again to float as before, and, besides, the entrance of persons must of course permit the introduction of additional air which has not undergone the settling process.

The volumes of transactions of the last two meetings of this society contain descriptions of a device for separating these floating agents from the air by means of water. The plan was found to be reasonably successful, but some material would always get through, as proved by potato cultivations, fresh slices of potato being exposed for twenty minutes in the air thus treated, and then sealed up.

The present purpose is to explain a device for sterilizing air by passing it through cotton. To overcome the friction and drive away non-sterilized air surrounding a wound which is being made in a surgical operation, the force of a fan is employed which is run by an engine. By establishing a hurricane on one side of the cotton, a moderate wind is secured on the other, having a force sufficient to overcome the effect of light specific gravity in the warm sterilized air. For surgical purposes, the addition of a small amount of steam is desirable, in order not to dry the exposed moist surfaces, and an arrangement for that purpose is seen in the drawing.

The surgical necessity for a temperature equal to that of the body is secured by gas-jets in the course of the pipe carrying the sterilized air. In this scheme the particulate material is supposed to be arrested by the cotton, which at the end of the necessary period can be burned.

The arrangement is in the form of a chest of drawers, the outside of the chest being a cube of fifty inches. There are two chests. There are three drawers in each chest, each having an area of cotton 40x40 inches, equal to 1,600 square inches, the area of the six being 9,600 square inches. There are two air-tight floors beside the lower floor of the box, one below the upper shelf and one below the middle shelf. The air enters above each shelf of cotton, and escapes below it. A sheet of woven wire with three-quarter-inch openings serves as the support for the cotton, which is about an inch in perpendicular thickness. The arrows show the course of the current of air.

Observations are in progress to prove the approximation to perfection of this device for depriving the air of the material in it which is capable of starting and perpetuating changes in organic substances.

An experiment to determine the penetrability of cotton by gases, while the particulate material is arrested, has been made by burning sulphur in the air previous to its passage through the cotton, and finding that the sulphur dioxide passes readily through, while the particles which ordinarily give a blue tinge to the sulphurized air have been arrested in the cotton mesh, leaving the air perfectly transparent.

The room in which this scheme has been worked out for *surgical* purposes has a capacity 3,360 cubic feet.

The blower (No. 00 of the Sturtevant manufacture) revolves 3,512 times in a minute. This is a rate of speed which makes very little noise and is sufficient for the purpose. At this rate of speed, it is estimated by the manufacturer to carry 662 cubic feet of air in one minute. This rate of air-supply would completely change the air of the room in five minutes.

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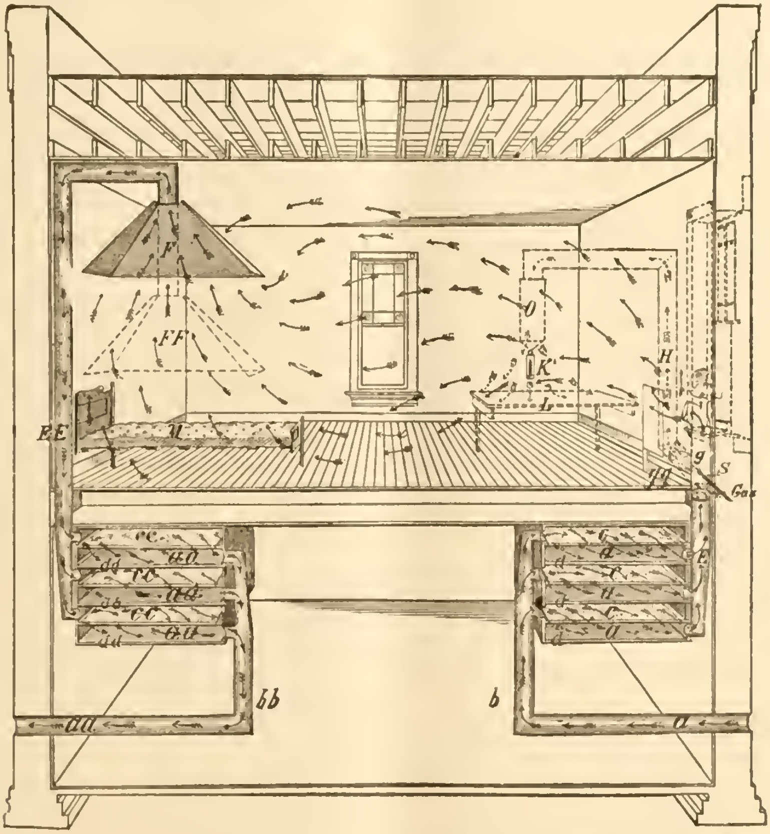
* Part of a paper prepared for and read before the meeting of the American Surgical Association, 1887. Printed from advanced sheets, by permission of the author.

There are, however, three elements of loss, viz., the slipping of the band, the escape by leakage through a long pipe, and the resisting influence of friction by which the fans of the blower slip on the air which they propel. It may be assumed that this loss amounts to one half. The air of the room would then be completely changed once in ten minutes.

The accompanying cut illustrates an arrangement for sanitary as well as for surgical purposes.



a, Inlet pipe.
aa, Outlet pipe.
b, Ascending inlet pipe.
bb, Descending outlet pipe.
c, *c*, *c*, 3 cotton filters for inlet.
cc, *cc*, *cc*, 3 cotton filters for exit.
da, *da*, *da*, 3 floors under the inlet filters.
dd, *aa*, *dd*, *aa*, *dd*, *aa* 3 floors under the outlet filters.
E, Ascending inlet pipe.
H, Ascending surgical pipe.
O, Descending surgical pipe, to be raised or lowered.
K, Thermometer.
Under *g* and over *gg* is the oblique *surgical* branch of the inlet pipe.
Gas, Gas flame for regulating the temperature of the air escaping from *O*.
S, Steam jet for regulating the moisture of the same air.
g, At the top of the straight pipe *g* is an eye looking at the flame below. Above *g* is the curved end of the inlet pipe for the *sanitary* use of purified air.
gg, Over *gg* is a screen to interrupt the straight horizontal blow of the same air.
EE, Descending outlet pipe.
F, Canopy.
FF, Canopy let down.
L, *Surgical* table *in section*.
M, *Sanitary* bed *in Section*.
The important objects are in section.

A practical plan of observation or test of the purity of the air thus treated is to expose for twenty minutes a series of slices of fresh boiled potato, or sterilized flasks or test-tubes containing sterilized liquid, to the filtered air. These objects are placed on a table within the scope of the inflowing air which has passed through the cotton, after which the exposed material is sealed up for future observation. Similar material sterilized in the same way is to be exposed to the open air the same length of time and sealed the same way.

Another set of the same kind of preparations is subjected, in the same way and for the same length of time, in any room in which it is desir able to test the condition of the air. Some observations have been made showing the superior purity of air thus treated, but perfection has not been reached.

The cotton is found not to arrest the particulate material in motion to the same extent as in still air. The cotton plug of a test-tube is not the seat of any motion whatever. If, however, the attempt is made to blow through a tube closed with cotton, the analogy is perfect, the particulate material will gradually travel through, and in a little while it will become necessary to renew the cotton.

b. For completeness of classification, mention should not be omitted of personal cleanliness. The hair brush and nail brush are not less important than a bath and clean clothes. Neglect of these may forfeit the good results of any amount of painstaking in every thing else. The surgeon is very likely to forget himself and to put his dusty head directly over a wound which he unconsciously plants with whatever may fall from it.

It is one good office of the appliance, illustrated on page 15, to prevent the head from coming directly over a wound and to blow away from it any dust which may fall from the head.

c. Dry aseptic dressing impenetrable by particulate material. The prevention of the approach of the agents of sepsis to a wound, after it is once made, was about twenty years ago a study by Guerin, of Paris. He employed cotton in large volume and refrained from examining the wound for many days. He was often successful in avoiding putrefaction, but the failures were too numerous for the general popularity of the method.

The employment of air-tight inclosures has been followed by no better success than the employment of cotton which permits the flow and change of the air. The cause of failure was obviously the implantation of the germs of decomposition which proceeded to develop putrefaction and pathological changes under the seal intended to keep them out.

Once the invaders are in, of such kind or force as to make head against the resident forces, they can not be smothered in this way.

JACKSONVILLE, ILL.

Reviews and Bibliography.

Massage as a Mode of Treatment. By WILLIAM MURRELL, M. D., F. R. C. P., London. Second edition, pp. 100. Philadelphia: P. Blakiston, Son & Co. 1887. Price, $1.25.

The medical profession is supplied in this little work with a very fair presentation of the subject of massage as viewed by the best and most capable members of the profession. The treatise begins with the history of massage as practiced in a more or less crude form in various ages and by various peoples; for, as is well known, it is one of the oldest and most universally practiced of therapeutical procedures.

It is not, however, the medical rubbing, the mere passive exercise, that Dr. Murrell would commend, but the intelligent manipulation of various muscles and groups of muscles in such a way as to advance their nutrition. We think the author is too much disposed to disparage tentative efforts. If a masseur must study for two years under a skillful teacher before he will cease to do more harm than good, one is disposed to ask by what forbearance upon the part of patients have the great numbers of masseurs been permitted to acquire their skill while inflicting positive pain and pursuing a good that had not yet been assured.

While we may not be able to join Dr. Murrell in all his rosy views in regard to massage, but must permit him to draw a certain measure of inspiration from his zeal, we can commend this work as being an unusually fair and intelligent presentation of the subject, and one well calculated to aid in raising an excellent procedure to a proper place among therapeutic agents.

The Diagnosis and Treatment of Hemorrhoids, with General Rules as to the Examination of Rectal Diseases. By CHAS. B. KELSEY, M. D., New York. Pages, 78. Detroit, Mich: George S. Davis. 1887.

From this little book (No. 1 of the Physician's Leisure Library) we would take pleasure in making extensive extracts did space permit, so full is it of good points and sound reasoning. While the work may be profitably studied by the specialist, it is especially suitable for the country practitioner, who may carry it in his pocket and read it perhaps twice through while waiting on some lingering case of labor, thus putting to the best use time that otherwise might be spent tediously and unprofitably.

Cyclopedia of Obstetrics and Gynecology. Obstetric Operations, the Pathology of the Puerperium. Being volume IV of a practical treatise on Obstetrics. By Dr. A. CHARPENTIER. In four volumes. One hundred and ninety-one engravings. New York: William Wood & Co. 1887.

In reviewing the previous volumes of this excellent work we spoke of it in high terms that apply to this, the fourth and last of the series. When we have said that it is attractive in arrangement, interesting in style, judicious in the views it inculcates, and exhaustive in character, we have described a work that is worthy of a place in every library, and indispensable to every one who would know the latest and best in the department of obstetrics to be found in established literature.

Evacuant Medication (Cathartics and Emetics). By HENRY M. FIELD, M. D., Professor of Therapeutics, Dartmouth Medical College. Pages, 288. Philadelphia: P. Blakiston, Son & Co. Price, $1.75.

This is not a bad book nor an ill-written book, but one, as far as we are able to see, which might have been kept for distribution among the author's classes. All that is original in it might very easily have been contributed to current literature for use in a new edition of some standard work on materia medica and therapeutics.

A Practical Treatise on Impotency, Sterility, and Allied Disorders of the Male Sexual Organs. By SAMUEL GROSS, A.M., M.D., LL.D. Third edition, revised, with sixteen illustrations. Pages, 172. Philadelphia: Lea Brothers & Co. 1887. Price, $1.50.

Among the few books held to be by common consent the best of their kind, Dr. S. W. Gross' practical treatise on diseases of the male sexual organs is well entitled to a place. The rapid exhaustion of two large editions, and its translation into foreign tongues, are good evidence of its popularity and worth. The information it gives is compact in form and practical, and, while not exhaustive, is as full as the great majority of physicians either desire or need.

Outlines for the Management of Diet, or the Regulation of Foods to the Requirements of Health and the Treatment of Disease. By E. T. BRUEN, of Philadelphia. London and Philadelphia: J. B. Lippincott & Company. 1887.

These "Outlines" are the substance of a series of lectures given to the students of various training schools of Philadelphia, and embrace in a fairly interesting form the most approved views in the matter of diet.

The style is rather popular than scientific, being thus adapted to the character of the audience to which the lectures were first delivered. There seems to us hardly a sufficient recognition of the fact that infinite variety exists in the adaptability of different foods to different individuals; indeed, not only in this, but throughout the work the author seems to have too little regard for general principles.

Anemia. By FREDERICK P. HENRY, M. D., Professor of Clinical Medicine in the Philadelphia Polyclinic. 12mo, pp. 134. Reprinted from the Polyclinic. Philadelphia: P. Blakiston, Son & Co. 1887. Price, 75 cents.

In this little work the author has made a careful collection of the most important teachings upon the subject of anemia. While the book contains a creditable *resumé* of existing knowledge, it is wanting in illustrations and other accessories that are indispensable to a ready understanding of many essential points. A special work that would treat of parasites without illustrations neglects an indispensable aid to the understanding and memory.

A Practical Treatise on Diseases of the Eye. By Dr. Edouard Meyer, Professor a L'école de la Faculté de Médecine de Paris. Translated from the third French edition, by Freeland Fergus, M. B., Ophthalmic Surgeon, Glasgow Royal Infirmary. Two hundred and seven illustrations and three colored plates. 8vo, pp. 647; cloth, price $4.50. Philadelphia: P. Blakiston, Son & Co. 1887.

Correspondence.

LETTER FROM GERMANY.

The sixth Congress für Innere Medicine convened at Wiesbaden, April 13th–16th. At the Congress was a representative gathering of Germany's medical men especially interested in internal medicine. The great majority were professors in the various universities of Germany, Austria, and Switzerland; the rest were private docents or assistants in the same. All seemed to be teachers. Prof. E. Leyden, of Berlin University, was president. On the evening of the second day the Congress was given an elegant banquet.

The Congress was originated at the time of the promulgation of the tubercular bacillus theory by Koch; indeed, this discovery was first published at the first meeting of this Congress. It has always had a tender side for phthisis, and at this session devoted two days to the subject, the Fellows listening to three elaborate papers, which they discussed at length. The general drift of these papers and discussions was that many cases of phthisis, one gentleman said more than half, if taken reasonably early, can be cured, and by proper care will so remain. It was the general agreement that no specific treatment had been found, and that the most useful measures were nourishment and fresh air.

The Pathology and Therapy of Whooping-cough was the subject of two long papers and a lengthy discussion. Opium was highly spoken of, and insufflations of quinia were considered to do more real work against the disease than probably any other remedy. The pathology was rather confused.

Oertel's mountain climbing and exercise plan for strengthening the muscles of the heart in heart disease was fully and favorably discussed.

Prof. v. Mering, of Strassburg, reported some interesting experiments on a dog, which promise to throw some light on the dark subject of diabetes mellitus.

Prof. Hagenbach, of Basle, read on the Pathology and Therapy of Whooping-cough. He discussed the subject carefully, and closed as follows: For a further solution of unanswered questions we must look to bacteriology and laryngoscopy. From these alone can we obtain a firm basis of treatment.

Dr. Michael, of Hamburg, in the discussion which followed, strongly recommended the insufflation of disinfectants in the nose. He had thus treated successfully seventy-five cases out of one hundred. The treatment had proved most beneficial in those cases which had already passed the sixth week or were just in the beginning. In those patients where every action of the inhalation remained absent in the first few days, he was obliged to resort to other remedies.

Prof. Huebner, of Leipsic, believed that all those remedies enumerated in his critical work had little favorable effect on the disease. There was, in his opinion, no rule, as the severity of the attacks as well as the duration of whooping-cough depended on individual surroundings. We must consider the number of the attacks; by this and the duration of the disease we can know whether we have done good or not.

Dr. Schliep, of Baden-Baden, treated his own child in the pneumatic cabinet. After twelve sittings the attacks disappeared. The disease, however, returned in fourteen days, and a few more sittings were required to complete the cure. He thought fifteen to twenty sittings necessary, and considered the action not simply mechanical, in that it chemically changed the hyperemia of the mucous membrane in consequence of the increased inhalation of oxygen. He had also used inhalations of a four-per-cent solution of sulphur.

Dr. Sonneberg, of Worms, referred to his report in the *Deutsche Med. Wochenschrift*, where he used antipyrin with success.

Dr. Cohen, of Hanover, called attention to the good effects attained by the inhalation of atomized bromide of potassium and the administration of musk.

Wiesbaden was visited in 1884 by 82,254 strangers. This alone speaks volumes for its popularity as a watering-place. It is a beautiful little city of 56,000, pleasantly situated at the confluence of the Main with the Rhine. It is on the southern slope of the mountains, three hundred and eighty feet above the sea level, and ninety-two feet above the Rhine. The mountains protect it from the severe winds of the north and northeast, while it lies exposed to the sun and warm south breezes. Central Europe averages 146 rainy days each year, Wiesbaden but 136. The rest of Central Germany has 17 more days of snow than this favored city. The average temperature here in June, July, and August is 18.5° C. (65.3° F.); in winter, 3.6° C. (38.48° F.). The death-rate is the lowest of any city reported in the Empire. Wiesbaden is indeed a charming place, with its wide streets, its parks, walks, fountains, statues, and handsome buildings. Numerous pleasure walks are arranged, leading up the mountain sides or off into the grassy valleys. One of the most delightful of these is up the Neroberg by the Greek chapel. This is the mausoleum of the Duchess Elizabeth Michailowna, a Russian Princess who died here in 1845. The beautiful building, with its gilded Moorish domes shining among the trees on the mountain side is a picturesque sight.

Wiesbaden is one of the oldest watering-places in Germany. It was described by Pliny. Of its numerous springs the Kochbrunnen is most used. Here fifteen springs in a space a yard square send up one hundred gallons of hot water per minute; this has a temperature of 154.4° F. on leaving the spring. After supplying the large numbers of drinkers, the water is carried to several bathing-places, and finally much of it runs off in the brook. Besides the Kochbrunnen there are twenty-three other hot springs within a surface of two thousand square feet. More than four hundred and fifty gallons of water is produced by the hot springs of Wiesbaden per minute. Their external use benefits cases of chronic rheumatism, gout, neuralgia, and nervous diseases, chronic bronchial catarrh, phthisis pulmonalis, first stage, and many other chronic affections. Analyses of the waters have been made by Prof. R. Fresenius; chloride of sodium is the principal ingredient.

Wiesbaden has about one hundred physicians, among whom are specialists in all departments. The season here is claimed by the inhabitants to continue the year through. This is true to some extent, for even in midwinter patients and visitors are here. Some enthusiastic Wiesbadeners claim that tender tropical plants can remain over winter in the open air. Many patients come in the fall for the grape cure. Grapes are brought daily from Italy and the Rhine Valley; about eighteen hundred thousand pounds are used yearly, two thirds being Italian, and one third Rhenish. The grape juice is pressed out by small presses. Its action is to increase the secretions, cause soft, watery stools, and cleanse the respiratory tract. The hotel accommodations of Wiesbaden are wonderful. Churches to suit all tastes are here. Excellent opportunities are present for educational advancement. Tramways, omnibuses, cabs, railways and steamboats afford pleasant excursions in all directions. Theater, opera, museums, art exhibitions, hunting, fishing, boating, and lawn tennis are among the amusements, and surely every variety of taste may here be pleased. Concerts are given twice a day in the Curgarten, and an excellent reading-room containing eight hundred papers is at the disposal of visitors.

Every known description of baths is to be had, Russian, Roman, Irish, Moorish, steam, swimming, mineral, electric, and medicated baths of all kinds. Patients may have the milk cure, goat's milk, whey cure, etc., or may, if they wish, try gymnastics, massage, pneumatic apparatus, or electricity.

The sixteenth Congress of German Surgeons convened in the University building at Berlin in April, under the presidency of Prof. v. Langenbeck, of Halle. Prof. Billroth, of Vienna, and Sir Spencer Wells, of London, were elected honorary members. Prof. v. Bergmann, of Berlin, was chosen President for the coming year. Interesting papers were read by Dr. Lange, of New York; Dr. Woeler, of Grantz; Dr. Sonnenburg, Dr. Schlanger, and Dr. DeReuyter, of Berlin; Dr. Bruns, of Göttingen; Dr. Helfreich, of Griefswald; Dr. Gensmer, of Halle; Dr. Josef Kovacs, of Budapest, and Dr. V. Tischendorf, of Leipsic.

The Anatomical Society, founded in Berlin, September last, held its session in the Anatomical Institute of the University here, recently. The meeting was, for so young a society, quite well attended, and interesting. Prof. A. v. Kœlliker, of Wurtemburg, was president.

Prof. Schroeder's memory was honored, recently, by a meeting in the University, at the call of the Berlin Obstetrical and Gynecological Society. A large number of distinguished persons, medical and non-medical, were present. Among others were his widow and nine children.

Prof. Kaltenbach, of Giessen, succeeds Prof. Olshousen as Professor of Obstetrics at Halle.

The sixtieth session of German Naturalists and Physicians will be held at Wisebaden, September 18th to 24th next.

The German Association of Public Health will convene in Vienna, September 26th to October 28th, to meet with the International Hygienic and Nosocomial Congresses. The latter will meet in the University building. All governments are requested to send delegates.

Prof. Olshousen, of Halle, has been called to the chair in the Berlin University made vacant by the death of Schroeder. He made his first appearance before the students on the morning of May 5th. He delivered a very feeling address, speaking of his predecessor in the most tender terms. The first literary work of Schroeder's showed unusual ability. It was a little brochure on Hematoma Ratro-uterina. Schroeder was the first in Germany, and the world, to use measures against infection in ovariotomy. Marion Sims thought we should treat the infection. Schroeder thought we should prevent it. These two had long discussions on this point. He then spoke at length of Schroeder's influence on abdominal surgery. Especially was Schroeder most useful in the field of operations. He has to a great extent perfected that most dangerous of gynecological operations, myotomy. High amputation of the cervix, washing out of the carcinomatous cervix, and separation of the cervix from the body, is the work of Schroeder, also the wedged shaped excision of the cervix in benign degeneration. In total extirpation of the uterus he has labored fruitfully. He thought that the cervix in pregnancy remained intact, and that the ring of contraction was not the internal os. He taught us much on the mode of action of expulsion in labor. He spoke next of Schroeder's text-books, Gynecology and Obstetrics. He complimented their accuracy and brevity. He spoke positively when he discussed a subject, and did not confuse the learner by theories and opinions. He spoke of him as a teacher, man, and physician. He loved his scholars, who filled his amphitheater to the last place. Quiet consideration, quick conclusions, and sound treatment were Schroeder's. He treated few cases palliatively, but sought by means of operations to effect a radical cure. Honor to his memory. E. S. M'KEE, M. D.

PARIS LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

You will have heard of the terrible catastrophe that has taken place in Paris in the burning of the Opera Comique, in which several lives were lost while many were burned and otherwise mutilated. The number of deaths to this date are ascertained to be seventy-seven, forty-three women and twenty-six men, and others of unknown sex, but it is thought that the number would probably reach one hundred and fifty or more. The loss of life and other accidents might doubtless have been considerably less but for the insufficiency of the number of outlets and the absence of other means of escape. The bodies of those persons not immediately recognized were removed to the morgue, where they were submitted to a *post-mortem* examination by Dr. Brouardel, the medical adviser attached to the Courts of Justice of Paris. In examining, by the aid of the spectrometer, the blood extracted from these corpses, the doctor came to the conclusion that the death of the victims was determined by three different causes. In some, death was produced by fright. In these the sudden cessation of the circulation of the blood in the veins and in the heart was established. In others, asphyxia by the oxide of carbon, which produced anesthesia and the disaggregation of the blood globules. Others again had succumbed to asphyxia produced by carbonic acid, asphyxia which might have been easily combated if prompt measures had been at hand. All the spectators who remained in the body of the theater perished asphyxiated by the oxide of carbon and other gases disengaged by the combustion of the scenery, which is generally painted with the most toxic substances. The death in these cases occurs almost instantaneously and without pain. But all this might have been averted if the electric light had been adopted instead of the gas, and if the police regulations, which are very stringent respecting the management of theaters, had been properly attended to. These regulations ordain that the scenery should be rendered uninflammable, and before being placed in position the different parts composing the scenery should be tested as to their uninflammability, and this test should be renewed once in six months at least.

The work of clearing the ruins is going on as rapidly as is consistent with safety. The further the workmen proceed the more certain it appears that there are a great number of bodies still in the ruins. This is placed beyond doubt by the effluvium caused by the putrefaction of the bodies which pervades the quarter. In order to counteract the ill effects of this, recourse was first had to chloride of lime over which large quantities of hydrochloric acid were poured, the result being the production of chlorine gas; but this proceeding had to be given up, as the gas proved so powerful an irritant that the workmen were overcome by it, and many of them were seized with spitting of blood. Carbolic acid was then tried. It was pumped on the ruins on all sides, especially on those parts where the workmen were chiefly employed. Its smell was, however, found to be so disagreeable that chloride of zinc has been substituted for it. I can not think why solutions of the sulphate of copper and of the sulphate of iron, or of corrosive sublimate had not been resorted to, as they are not only better disinfectants, particularly the latter, but are considerably less expensive than any of the preceding substances. An inquiry into the cause of the fire has been opened, but it will, I fear, be some time before any results can be arrived at. For the present, however, it has been ascertained that a water main on the stage had been out of order for weeks, and that the inspectors, whose duty it was to see that it was in working order, made no report on the subject. The iron blind, intended to prevent the extension of fire, was also out of order, and this theater was the only one in Paris unprovided with a reservoir which is intended for the purpose of inundating the stage in case of necessity.

At a recent meeting of the Academy of Medicine of Paris, Dr. Gustave Lagneau, a well-known statistician, called attention to the disastrous effects of the intellectual over-pressure to which boys are subjected at the present day during the ten years they pass in the schools in this country. The examinations at some of the higher institutions require so severe a course of study that the effect of the strain on the constitution is often very serious. A considerable number of students belonging to these institutions have been found to be affected with myopia, dyspepsia, phthisis, nervous exhaustion, followed in many cases by impairment of the intellectual powers. It has, therefore, become a matter of the utmost importance to recognize that the intellectual culture of doubtful quality and stability produced by the present system is only gained at the expense of physical development. The fact, that out of one thousand French conscripts four hundred and sixty were declared unfit for service, produced a most painful impression on the minds of the members who listened to Dr. Lagneau's report, particularly as the author saw in this state of things the seeds of the degradation of the French nation.

Dr. Dujardin-Beaumetz, who is physician to an important school for young girls, declared that the educational programme in girls' schools was equally in need of radical reform. The prolonged hours of study and the severe examinations were injurious alike to body and mind. He deplored the tendency of the present day to educate as teachers girls who were often better fitted for other employments, and who ought to be reserved, as nature intended them, to be efficient mothers and housewives. In order to give an idea of the enormous competition that exists in this profession, it may be mentioned that in Paris alone, for about one hundred vacancies which occur during the year, upward of four thousand girls, provided with teachers' certificates, are seeking for situations of this kind.

This view of the consequences of intellectual overpressure is quite in accord with that expressed by Dr. James Bates, of Warren, in his essay, which was submitted to the Societé Française d' Hygiéne, which recently proposed that subject for competition for a prize. I have had an opportunity of reading Dr. Bates' essay, and found in it many useful hints on the hygienic management of schools and of the pupils, that of the latter being founded on physiological and esthetical grounds. To give your readers an idea of the authors' appreciation of the subject, I may just quote the leading paragraph of his essay: "The age is precocious; that which would have, in years agone, required the brain of an adult to have mastered is now deputed to children of obviously weak minds and weaker bodies. The child is expected to work out problems in the obscure sciences when the diaphysis and epiphysis of his bones are yet held together by cartilaginous union. Before the fontanelles are closed, we find him instructed in, not how to walk uprightly or exercise in his childish games gracefully, but in studies and literary work difficult enough for much maturer years."

Dr. Christian, however, is in opposition to the views expressed by Dr. Lagneau at the Academy of Medicine, and brought forward statistics collected by himself among his patients at the lunatic asylum at Charenton and also at Maréville between the years 1876 and 1887. In response to Dr. Lagneau's remark that a large number of students belonging to the superior, military, and other technical schools leave these institutions with their brains fatigued and worn out, and find themselves at the age of thirty-five or forty incapable of intellectual effort, Dr. Christian, at a recent meeting of the Societé de Medecine, stated that out of ninety-nine military officers under treatment for insanity, only seventeen had passed through the government schools. Of the seventeen, in only eleven could precise information be obtained as to their history. Out of these eleven, in six instances the disease could be traced to hereditary causes; two had received severe head injuries from falls, and three were victims of melancholia. In Dr. Christian's opinion, insanity from mental overexertion is more often met with in officers who have risen from the ranks than in those that have passed through the government schools.

Another writer, in response to the question, how the evils of sedentariness and intellectual overpressure in schools are to be remedied, proposes that the hours of sleep should be regulated according to the ages of the pupils, those of adolescents not being less than eight hours. The daily amount of intellectual work, being also proportioned to the ages of the pupils, should be from three to eight hours. This work should be interrupted by recreations, consisting of singing, moving from place to place, different games, physical exercises. The duration of study, which for the younger pupils may last about half an hour, should never exceed an hour and a half for adolescents.

Paris, June, 1887.

Translations.

Academy of Sciences.—Drs. Chauveau and Kaufmann gave the conclusions of their memoir on the determination of the co-efficient of nutritive and respiratory activity in the muscles in rest and exercise.

a. Relative to circulatory activity during labor. The quantity of blood which passes in one minute through the muscular tissue in a state of activity, equals on an average eight tenths (.850) of the weight of the muscle, in lean subjects admitting of free circulation. The coefficient increases and diminishes with the functional activity of the muscle. In the same muscle accomplishing the same labor the blood supplied is essentially constant, it is also the same in different subjects whose muscles are of the same weight and perform the same task.

If the muscles have not the same weight, the same amount of labor demands the same quantity of blood for the nutritive and respiratory activity of the muscles, whatever the mass of these may be.

b. Relative to circulatory activity during the state of repose. Circulation is in this condition nearly five times less active than during labor, being about one tenth of the weight of the muscle instead of eight tenths (.175 instead of .850).

The co-efficient of circulatory activity varies singularly during the state of rest, contrary to what takes place in a state of activity.

c. Relative to the absorption of oxygen carried to the muscle in the blood during exercise. The quantity of oxygen which the blood in one minute gives up to the muscular tissue during exercise equals on an average about the one hundred thousandth (.0000141) of the weight of the muscle in the case of lean subjects. This co efficient, like that of blood irrigation, increases and decreases with the functional activity of the muscle.

The quantity of oxygen, contained in the carbonic acid which the blood carries away from the muscle is greater than that which the latter receives from the former; the proportion is one to one and two tenths (1 to 1.223).

Thus the quantity of oxygen relatively considerable, absorbed by the muscle during exercise is insufficient to support the organic combustions, even reduced to that of the carbon contained in the carbonic acid excreted. It seems then that there is an accumulation of oxygen during the repose of the muscle. The oxygen yielded to the muscle by the blood presents a slight excess over the quantity of oxygen necessary to the combustion of the carbon contained in the glucose taken by the muscle from the blood.

d. Relative to the absorption of oxygen carried by the blood to the muscle in a state of repose. This absorption is twenty-one times less active than in the muscle at work; but to the reverse of what happens during exercise, all the oxygen absorbed by the muscle at rest is not found in the oxygen excreted by the muscle. It is this excess which forms the accumulation of oxygen during the state of activity of the muscle.

e. Relative to the carbon supplied to the blood under the form of carbonic acid, and the reputed combustion during exercise. That amount of carbon (.000067), six one hundred thousandths of the weight of the muscle per minute, is greater than that which disappears from the blood. The excess comes either from the sugar stored up during rest or may be from other substances, such as fatty or nitrogenous principles.

f. Relative to the carbon supplied to the blood under the form of carbonic acid and the supposed combustion during the state of rest (.0000019 of the weight of the muscle per minute). Contrary to what takes place during active work, the quantity of carbon furnished to the muscle during rest by the glucose which disappears from the blood is greater than that which is transformed into carbonic acid. There is then a part of this glucose which is not directly utilized in the combustion of the muscle in a state of inactivity. This is the origin of the reserve of glycogen which is consumed during labor.

Abstracts and Selections.

Position of Fetal Head: Diagnostic Difficulties.—Dr. John Bartlett (Gynecological Society of Chicago) read a paper entitled A Case of Obstetrics, with Remarks. Recently I was requested to assist a younger physician in a case of midwifery. Dr. H. had been called some hours before my coming. He found a healthy, well-built woman in labor with her eighth child. Hitherto she had had no difficulty in her confinements. She had been in labor some hours, and, although the pains were very strong, the os fully dilated, and the head presenting, no progress had been made. A midwife had been in attendance. The doctor attempted to use Elliot's forceps, but because of the high and abnormal position of the head above the pelvic brim he had desisted from his purpose. Upon examination I found the os widely dilated, the crown of the head presenting. By introducing the hand into the vagina, my fingers, directed toward the left sacro-iliac synchondrosis, encountered and passed slightly beyond an extremity of the head-ovoid which I supposed to be the occipital protuberance, but near it was so distinct a fontanelle as to lead me to examine the opposite extremity of the head. Passing the hand deeply behind the left foramen ovale and well above the pubes, the fingers embraced the occiput; sweeping well backward again over the side of the head they traversed the temporal region till the ear was reached and carefully outlined. Still farther backward the fingers passed over the frontal eminences, which had at first been mistaken for the occipital protuberance. The head was floating above the pelvic brim, the frontal region sinking somewhat below the plane of the superior strait. The crown of the head rested gently upon the pubes, while the occiput rested so far forward over the pubic bones as to be distinctly appreciable to sight and touch from without. Having determined the position of the head, I proceeded to inquire the cause of its detention; for it did not impinge with force upon any portion of the circumference of the brim. Passing the fingers along the side of the head I felt for the cord around the neck. A coil of cord was immediately encountered, and pressing a little farther upward, a second, third, and fourth coil were detected. I felt authorized to announce to Dr. H., as the cause of dystocia, the suspension of the head above the brim by the cord shortened by four coils about the neck. The fingers were passed about the occiput and it was pressed downward and backward, throwing the forehead backward and upward above the brim, and bringing the occiput slightly into the pelvis, the pains meanwhile having a decided effect in assisting the maneuver.

The head was now seized with a well-curved Simpson's forceps, and readily brought down. The expectation was, as soon as the head was delivered, to place quickly two clamp forceps on the cord and cut it between these, in order to escape the embarrassment which the several coils about the neck might occasion. The first loop, however, was easily drawn over the head, the other coils were then readily released. The child, which weighed eleven pounds, breathed at once, seeming but little affected by the unnatural position of the funis. The length of the cord was forty-six inches.

It may be considered what other lines of practice might have been pursued. It might have been practicable to disengage the cord from the neck, and in this way remove the cause of the dystocia. To this practice was the serious objection that, with the head floating above the brim, the liberation of such a length of cord so near the pelvic inlet might have led to its prolapse.

In connection with this case I propose to make some comments upon the mode of determining the position of the head in labor. From time immemorial it has been the custom of teachers to describe with particularity how the position of the head may be determined by the tips of the fingers by means of the sutures and fontanelles.

Whatever skill or tact others may be endowed with, or may have acquired in such methods, for myself I wish emphatically to declare that such examinations are often entirely insufficient to furnish me with the desired information; and that now, after years of careful observation, I am not infrequently at a loss to determine the position of the head after the usual examination *per vaginam*, and that I am occasionally led into an error in this regard only to be dissipated by the birth of the head. Nor am I alone in this want of capacity; a number of experienced obstetricians, with whom I have conversed on this subject, have expressed like uncertainty in determining the position of the head by the means mentioned.

The veteran John S. Clark, the most experienced practitioner in obstetrics that I have ever met, has on several occasions denounced the directions above referred to, and so often repeated in the text-books, as a delusion and a snare. The late Dr. Grosbeck, after fifty years of obstetrical practice, declared that he never could rely upon determining the position of the head by the methods under consideration. And the painstaking, accurate, and deliberate surgeon, Dr. R. G. Bogue, does not boast of much better success. *One of the most learned obstetricians in this city, an able lecturer on midwifery, once assured me that while he repeated fluently enough to his classes the stereotyped methods of determining the position of the head by the fontanelles and sutures, he often found, as the head passed the vulva, that the "data" furnished by the tips of the fingers had led him into gross error.* While in many cases the position of the head may be easily and certainly recognized by the ordinary methods, it is yet certain that in other instances, more especially when difficulties make a knowledge of the head's position particularly desirable, nothing positive as to its attitude can be made out by the average practitioner by feeling in the usual way for sutures and fontanelles.

Nor is this appreciation of the difficulty of determining the head's situation new. That admirable obstetrician, William Smellie, who was one of the first to appreciate the desirability of knowing the head's position, and who perhaps earlier than any other accoucheur taught how such knowledge could be acquired, was often foiled in his efforts to ascertain the head's true situation. He writes, in his Observations, as follows: "The head, though low down, was so swelled that I could not distinguish its position, for I could feel neither suture, ear, nor back part of the head." And in another place he writes, "I could not in any way, by the sutures or otherwise, distinguish the right situation of the head. I introduced the forceps at random by the sides of the pelvis." And again, "The head was so large and compressed into such a lengthened form that I could not push up my finger at the pubes to feel the ear or neck; neither could I distinguish the situation of the head by the sutures, because the scalp was so swelled; nor could I move the head upward in order to feel the upper parts, such as the ear, neck, or face."

And also, "I felt something like the vertex down at the lower part of the pelvis, but we were all mistaken as to the position of the head. I thought the forehead toward the sacrum. I mistook the posterior for the anterior fontanelle. I was surprised to see the (supposed) occiput come along under the pubes, not with hair, but bald and smooth. We had all been mistaken as to the position."

How then, in cases requiring a knowledge of the head's position, is such information to be obtained? I know no better way of answering this question than by making reference to the practice of Smellie. Please to note the thorough methods by which he satisfied himself of the size or position of the head in the several cases here cited. "I knew the child was small because I passed my finger all around the head." And, "I perceived that the head was not large, because I could easily introduce my finger all around the lower part of it." Desiring to ascertain the position, he says, "I scooped up the head above the brim of the pelvis, and as I slipped my hand flattened between the sacrum and the child's head, I felt with my fingers the back part of the neck" (determining the position of the occiput). And again, "I turned the back of my hand down toward the sacrum and raised or scooped the head gently to the upper part of the pelvis; and now with my fingers I felt the posterior part of the neck, and distinguished that the pelvis was not distorted. Thus informed, I introduced the blade of the forceps." etc. In reference to another case, he says, "Being foiled in delivering the head, which was not large, after having properly applied the forceps I disengaged the instrument, and raising the head again (out of the pelvis) found the difficulty was owing to the left shoulder being over the pubes. I got hold of the arm, brought it down, and again fixed the forceps and delivered, pulling gently at the hand."

From these extracts it will be seen that Dr. Smellie did not content himself with vaguely touching such portions of the presenting part as might be reached by the introduction of one or two fingers, but that he introduced deeply the half hand, or the whole hand, and passed the fingers into every available space; not hesitating, when necessary and practicable, to lift the head above the brim that he might get his finger about its salient points, as the ear, the face, the back of the neck It is noteworthy that it is only when circumstances prevent the head being thus "traced," that Smellie recommends that "the observation" be taken from the fontanelles and sutures. In the case which is the basis of this paper, the vaginal examination was made after Smellie's method. The steps of the procedure have been given in detail with the purpose of illustrating his teachings.—*American Journal of Obstetrics.*

THE MODERN TREATMENT OF URETHRITIS.—Dr. George E. Brewer, of Roosevelt Hospital, read a paper on this subject before the New York Dermatological Society, March 22, 1887.

The results of treatment are shown in tables which accompany Dr. Brewer's paper. They may be briefly stated as follows: Of 23 cases of acute specific urethritis treated by irrigation with bichloride of mercury marked improvement was noted on the first, and latest on the eighth day. The average cessation of purulent discharge was in $10\frac{9}{10}$ days, and all discharge in $17\frac{1}{3}$ days. Of 14 cases of non-specific urethritis marked improvement was earliest on the first, and latest on the eleventh day. The averages in this class were: improvement, $3\frac{4}{14}$ days; absence of pus, $6\frac{1}{4}$ days; absence of all discharge, $7\frac{3}{4}$ days. Of the 8 cases of chronic purulent urethritis treated, marked improvement in 7 was noted at end of first 24 hours, and in the remaining case at the end of 3 days, all discharge in $9\frac{2}{5}$ days. In private practice the results are even more favorable. In 30 cases collected, all of acute gonorrheal urethritis, the recovery in all took place within two weeks. The average was $7\frac{27}{38}$ days.

In 46 cases treated by the prolonged retrojection of hot water alone, or combined with some astringent agent, marked abatement of inflammatory symptoms, a diminution in the amount of discharge and a decided change in its character were observed. This method is deemed sufficient to check the discharge in cases of non-specific and chronic urethritis within a few days.

Dr. Brewer's experience induces him to assert that in the retrojection of a hot solution of bichloride of mercury we have a method which combines the soothing and antiphlogistic action of heat with the germicidal and curative effect of the bichloride, which, in cases of acute specific urethritis, fulfills the indications in a more satisfactory manner than any method with which he is familiar.

The method of irrigation is thus explained. The apparatus consists of an elevated reservoir, a rubber tube, and a glass or gutta-percha nozzle. The patient is first instructed to pass his water, the nozzle of the irrigator is next firmly pressed against the urethral orifice. The current is so directed that the stream enters in the line of the canal. Sufficient outflow is permitted to keep the fluid in motion while the urethra remains distended. From one to two quarts of fluid are allowed to pass through the urethra at each irrigation, which should be repeated twice or three times in twenty-four hours.

The strength of the bichloride solution used should range from 1 to 60,000, to 1 to 10,000, according to the sensitiveness of the urethra. When hot water is used, the temperature should be 98° at the beginning and gradually raised until it is as hot as the patient can bear; about two quarts should be used at least twice a day.

In concluding his paper Dr. Brewer offers the following summary:

"1. That in uncomplicated cases of acute gonorrheal urethritis, treated by prolonged and frequent irrigation with bichloride of mercury, recovery may be expected within two weeks; that this period may be considerably shortened by the early inauguration of treatment, by absolute rest, and by the avoidance of stimulants; that it may be indefinitely prolonged by irregularity in treatment, by inordinate physical exertion, and by indulgence in alcoholic and venereal excesses.

"2. That the retrojection of a hot solution of bichloride possesses all the advantages of the former procedure, and in addition causes a more rapid subsidence of inflammatory symptoms, a greater feeling of comfort to the patient, and is attended with less annoyance and trouble.

"3. That in cases of acute non-specific urethritis the favorable influence of these methods is strikingly apparent.

"4. That in cases of chronic purulent urethritis no agent produces such rapid and permanent improvement as irrigation, especially when combined with astringents and heat.

"5. That the percentage of complicatious occurring in cases treated by these methods is far below that observed when the ordinary methods are employed."—*Maryland Medical Journal.*

METHYLAL.—Dr. M. Motrokhin, of Prof. V. K. Anrep's laboratory in Kharkov, states that he has made a number of experiments on men, dogs, rabbits, and frogs, as to the physiological action of methylal, the new hypnotic, to which attention has lately been called by Dr. Personali. The following is the mode of preparation: A mixture of one part of methyl-alcohol, 1½ parts of pure concentrated sulphuric acid, and 1½ parts of water, is subjected to distillation. The distillate is purified by treating it with potash, filtering and redistilling with chlorinated lime at 42° C. The product obtained is pure methylal. It is a light, colorless, easily-evaporating fluid of a pleasant aromatic odor, somewhat resembling that of ether and chloroform. Is is neutral in reaction, and has a specific gravity of .8605 at 20° C. It is easily soluble in water, alcohol, and oils. The result of Dr. Motrokhin's experiments may be summed up as follows: (1) When inhaled, methylal produces sleep, which ceases soon after discontinuing the inhalation. (2) Sensibility to pain is diminished during sleep. (3) The respiratory movements become slower and deeper, but remain regular. (4) Methylal does not seem to have any influence on the heart. (5) In man, the inhalation of two ounces of the drug gives rise to anesthesia, which is especially marked about the head, and to a state of light intoxication. No unpleasant secondary effects are observed either during or after narcosis. (6) The drug causes a diminution of reflex action, and lessens the irritability of the cerebral cortex. (7) It neutralizes the spasmodic action of strychnine and picrotoxin, when these substances have been given in moderate quantity. When the dose of the alkaloid is large, methylal hastens the fatal issue, since in that case it has also to be given in poisonous doses. Hence methylal can have only a limited sphere of usefulness as an antidote. (8) The drug is administered either internally or through the lungs. Subcutaneous injection of it is very painful, and often gives rise to local gangrene of the skin. With reference to Dr. Motrokhin's paper, Dr. Serges Popoff, of Prof. P. P. Sushtchinsky's laboratory, writes that, as far as his own researches show, methylal is far from having no effect on the heart. On the contrary, it considerably retards the beats of that organ both in frogs and warm-blooded animals; it appears to act directly on the cardiac muscle and its ganglia. Moreover, the drug causes slowness and difficulty of breathing, which are dependent upon the action which it exerts on the central nervous apparatus. On the whole, Dr. Popoff is inclined to think that the use of methylal in practical therapeutics will be attended with certain difficulties.—*British Medical Journal.*

ANTISEPTIC TAMPONNEMENT OF THE VAGINA IN THE TREATMENT OF PELVIC INFLAMMATIONS.—(Dr. James H. Etheridge, Gynecological Society of Chicago). What I have to present refers to tamponnement of the vagina and supporting the uterus in cases of pelvic trouble, notably of inflammation and enlargement of the uterus, and as the work has grown upon me, other complications in the way of pelvic trouble have also been treated with a result that has rather surprised me. For it I claim nothing original. The material that I use is a preparation of wool that is called "antiseptic wool." This wool is finely carded, free from all oil and foreign substances. A piece is cut off, of such a length as will fit nicely into the vagina, and then with the patient in the genu-pectoral position, with the perineum retracted, this is stuffed into the vagina and left there. The upper end of this tampon can be soaked in any antiseptic solution, as boroglyceride or listerine, and with a piece of string attached to the lower end of it, the patient can remove it and douche the vagina, in readiness for the next tampon, and in this way tampon after tampon can be introduced and the uterus held up to the highest possible level, and advantage taken of the natural drainage from the uterus of the superabundant amount of blood. The inflammations of the uterus we are usually called upon to treat are not active, but chronic, and if we hold the uterus up so that it can drain itself properly through the veins, the nutritive changes which take place will be facilitated to the greatest extent. A small Sims' speculum can be applied without trouble to the patient, and this wool can be pushed into the vagina, so that when the patient gets up she has a soft elastic cushion for the uterus to rest upon. In this way the greatest comfort is at once experienced. . . . These tampons are removed after four or five days without the slightest odor upon them.

When the uterus is enlarged it becomes heavy, sinks, and presses the veins which carry the blood out of the uterus, and we have strangulation. By raising the uterus up, the blood flows freely and the nutritive changes tend always to health. One outgrowth of the use of this tampon may be that many cases of laceration of the cervix now operated upon may escape operation. I have been surprised to see how very nicely patients get along, even though they have extensive lacerations, under this treatment.—*American Journal of Obstetrics.*

THE INFLUENCE OF ALCOHOL ON THE DIGESTIVE FUNCTIONS IN THE NORMAL AND IN THE PATHOLOGICAL STATE.—Gluzinski has recently undertaken a series of experiments on human subjects, to ascertain the influence of dilute alcohol on the stomachal digestion. He gave to fasting individuals, some of whom were healthy, and others of whom were suffering from digestive troubles, a certain quantity of coagulated albumen, with a definite proportion of alcohol. At certain periods of the digestion he syphoned out the contents of the stomach for chemical analysis. He was thus able to follow the march of digestion in its several stages. The results of his experiments are as follows:

Alcohol rapidly disappears from the stomach, leaving not a trace of its presence behind. The digestion as influenced by alcohol, is divided into two phases in healthy individuals: The first phase is characterized by a marked retardation of the digestion of albuminoid matters, which in fact fail to undergo peptonization as long as any alcohol remains in the stomach. The second phase begins after the elimination of the alcohol. It presents an absolute contrast with the first, and makes up for the slowness of the first period by increased functional activity of the stomach, so that the digestion is terminated about the same time as when no alcohol has been ingested. In the first period alcohol retards the pepsin digestion. On the other hand, it causes a certain degree of excitation of the glandular elements, which is followed, in the second period, by a more abundant secretion of hydrochloric acid. This excitation persists, even after the albuminous elements have disappeared from the stomach.

The first period, that of slowing of the digestion, is generally very short. Experiments, in fact, show that one hundred grams of albumen, containing twenty-five per cent of alcohol, have, in many instances, completely disappeared from the stomach at the end of fifteen minutes. The second period, during which digestion is accelerated, supervenes quite speedily.

The conclusions which Gluzinski draws from these experiments is, that in reality the ingestion of small quantities of alcohol exercises a favorable influence on the digestion in individuals in good health.

In the pathological state the two phases of digestion are much less marked after the absorption of a certain quantity of alcohol. The second period, that of excessive functional activity, is almost completely wanting in most persons. These facts show that in cases of dyspepsia, for example, the physician should not recommend, with the intent of promoting digestion, the usage of beverages which contain a large percentage of alcohol.—*Boston Medical and Surgical Journal.*

QUININE IN ALBUMINURIA.—M. Pernet reports a case of albuminuria that was rapidly cured by the administration of quinine. The patient, a coffee-house keeper, aged thirty-seven, habitually enjoyed good health. On going to bed after a long walk in the country, during which he had perspired freely, he was seized with chills, which were soon followed by fever. Subsequently, bilious vomiting set in, with sleeplessness and loss of appetite. There was great emaciation; the skin remained dry. Pressure over the gall-bladder produced great pain. The pulse was 72. Examination of the urine revealed a considerable quantity of albumen, but no sugar. As the patient also suffered from worms, one gram of calomel was given, together with a small quantity of opium. On the following day the urine was found free from albumen. It was then discovered that the albuminuria was intermittent and of the tertian type. Seventy-five centigrams of quinine were administered to the patient daily, with the remarkable result that the albuminuria disappeared as if by enchantment. The treatment, however, was continued in progressively decreasing doses for several days, when the patient entered on a period of convalescence.—*British Medical Journal.*

Corrosive Sublimate in Intra-uterine Irrigation.—Dr. Braun, from recent observations, has arrived at the following conclusions concerning the use of corrosive sublimate in irrigation of the uterus and vagina: (1) Vaginal or intra-uterine irrigation is frequently followed by absorption of the injected liquid; (2) When this occurs mercury is quickly detected in the feces; (3) If the return of the injected liquid be in any way prevented, absorption occurs rapidly; (4) The 1 in 1000 solution of sublimate should be used only in serious cases, such as tympanites of the uterus, putrefaction of the fetus in the uterine cavity, or septic puerperal fever. The injection should not occupy more than a minute in the performance, and should be followed by a copious injection of distilled water. (5) The 1 in 4000 solution should be injected only in cases of expulsion of a macerated fetus or in endometritis consecutive to the expulsion of the fetus in premature delivery; (6) This solution may be of service in puerperal endometritis, accompanied by a fetid vaginal discharge; in these cases irrigation should be followed by an injection of pure water; (7) Irrigation should be performed only by a medical man; (8) Irrigation with corrosive sublimate should seldom be employed in women suffering from extensive wounds of the vulva, in those who have been taking mercurial preparations, in cases of atony of the uterus, in anemic women, or in patients suffering from disease of the kidneys.—*British Medical Journal.*

Leprosy in Spain.—A writer in the British Medical Journal (April 30) says that "leprosy, according to an official circular of the Madrid Gazette, is prevalent in the provinces of Valencia, Alicante, Almeria," etc. In the latter part of 1878 I passed several weeks among the lepers in a large district in the two first-named provinces, comprising three heads of departments, namely, Pigo, Parcent, Pedreguer, and eleven or twelve small towns and villages. I visited and examined scores of lepers in every stage of the disease, and hundreds who were "*sospechosos.*" I also reported to our then ambassador in Madrid (Sir J. Walsham) the sad state of the people there. Seeing that the lepers are the vine-raisin cultivators, harvesters, and packers, they have all the handling of the fruit. The raisins are by far the finest grown in the Peninsula, equal to the famous "sultanas;" they are all packed in boxes without stalk, and are the raisins from which our best Christmas puddings are made.

The limits of the disease are from Denia in the north to Jabea in the South, and to the orange groves on the west. When I came on to the "orange zone" I could not find a single leper; all were limited to the vine-raisin and stunted olive and carob-growing belt.

My object in writing this is to prove that the Spanish Government was fully aware of this flourishing leper field. I have documents and statistics by me as far back as 1845, which I obtained from the parish priests and the government medical men of the several places visited.

Serious Result from Unintentional Intra-uterine Medication.—Dr. John B. Harris writes to the London Lancet, May 14th, as follows:

On March 8th I attended a lady with her first child. About the third day, the discharge being offensive and the temperature elevated, I ordered injection of Condy's fluid and gave quinine. In a few days the temperature and discharge were normal. Ten days after this I was suddenly called at 10 p. m., and found the patient almost in a state of collapse; violent and incessant vomiting and diarrhea. Temperature 102.6°. The following was her statement: For the sake of comfort she had continued using the syringe at night; but on this occasion when she introduced the vaginal tube she experienced intense pain, which was increased by the injection. Shortly afterward her condition became so alarming that I was summoned in haste. I found on examination the os somewhat patent and the uterus abnormally low. The injection was deeply colored with ordinary blood. On the following day the sickness had abated; temperature 102°; no abdominal tenderness, but intense pain in the back, which lasted for two days. The uterus was tender on examination *per vaginam.* Two days after the temperature rose to 104.4°, with rigors and vomiting. The patient was almost pulseless, and apparently in a dying state. My friend, Dr. Moon, saw her with me at 11 a. m. Still no pain, the back pain having left. On the following day the temperature sank to 103°, the rigors had ceased, and only a feeling of nausea remained. The next day the temperature sank another degree, and the patient complained for the first time of pain in the left groin as far as the left ovary. The pain remained severe for two days; but the temperature sank gradually to normal, the patient improving daily. She is now (April 25th) able to change her room, eating well, but feeling and looking extremely weak. The treatment consisted mainly in the exhibition of quinine, opiates, and soothing applications when necessary.

GASEOUS RECTAL INJECTION IN CONSUMPTION.—Dr. H. Blanc thus comments in the London Lancet on this method of treatment:

I have always prescribed the "Eaux Bonnes," being careful to exclude all bottles not containing a good supply of sulphureted hydrogen. At the beginning of the treatment two liters were injected, gradually increasing to four, and after a while this quantity was injected twice a day. In every case the gaseous injections were well tolerated. They never gave rise to any local or general disturbance. They were very soon followed by a marked improvement in the general condition of the patient. He gained flesh, the appetite increased, the hectic lessened. In one case tubercular infiltration was progressing rapidly, attended by a high temperature. It ceased to invade the lungs a fortnight after the treatment had been commenced. The patient is progressing favorably. He is still making two gaseous injections daily. It is nearly three months now since he began them. On the other hand, in this as well as in other cases, the bacilli are as abundant as ever; the cough persists, and is, perhaps, more troublesome, a lessened expectoration being one of the consequences of the treatment. Some of the cases left Cannes before I was able to form an opinion as to the ultimate value of this new method, and altogether my cases are too few for me to pass judgment on it one way or the other. I believe, however, that it has done some good, certainly no harm, and with Dr. Burney Yeo I would say that the remedy is worthy of a more extended trial, and that "something" may come out of it.

DR. PEACAN'S TREATMENT OF CHOLERA.—Dr. L. Peacan, of Buenos Ayres, warmly recommends a plan which he has for many years past pursued with much success in the management of cholera. When a typical case with vomiting and diarrhea comes before him, he immediately applies a cautery behind the right ear over the condyle of the lower jaw, with the object of stimulating the pneumo-gastric, and thus paralyzing the action of the sympathetic on the abdomen. He then administers six centigrams (six-sevenths of a grain) of calomel, which dose is repeated every five hours. Half an hour after taking the first of these powders a mixture is commenced, consisting of phosphoric acid, carbolic acid, tincture of opium, tincture of ginger, chloric ether, and mint-water, which is supposed to arrest vomiting and diarrhea, to allay thirst, and to calm spasm—being, indeed, he states, sufficient to cure mild cases by itself. When the cramps are severe, ten drops of Battley's sedative solution of opium is added; and when there is marked prostration of the nervous system, tincture of coca. If the diarrhea continues, three grams (forty-six grains) of glycerole of tannin are given in coffee three or four times a day, and forty centigrams (six grains) of Dover's powders for three or four nights in succession. The patients are allowed to have as much sulphuric acid lemonade as they care for. In addition to internal medication, warm frictions and sinapisms are applied, especially over the epigastrium.—*London Lancet.*

EFFECT OF ARTIFICIAL RESPIRATION ON THE CIRCULATION.—Professor Kraske (Freiburg) before the Congress of the German Surgical Society, April 13th–16th, spoke of artificial respiration and artificial motion of the heart. He related a case in which tracheotomy was performed for diphtheria on a boy, aged five years, after the respiration and cardiac movents had ceased; about ten minutes after the last breath, artificial respiration was commenced, and seemed at first to be successful, as the lips and cheeks reddened and the enlarged pupils contracted. But finally the attempt had to be abandoned as useless; the artificial respiration by the Sylvester method produced, it was thought, a certain movement of the blood in the dead body. Professor Kraske had made some experiments on this point. Having introduced a colored liquid into the jugular vein of dogs, he found that it was possible to drive it on through the blood-vessels by artificial respiration alone. Similar experiments on human bodies were also successful. These observations are of a certain importance in connection with the treatment of the apparently dead, and may prove useful to the operator, especially in cases of chloroform syncope, when it is a matter of urgency, not only to free the blood in the lungs from chloroform by aeration, but also to impel the aerated blood toward the heart in the hope of rousing that organ to renewed activity. By a suitable modification of the method, as described by the speaker, it would seem to be possible to act on the heart itself in a more direct manner. In the discussion some similar cases were mentioned. One speaker dwelt on the advantage in chloroform-poisoning of putting the head in a dependent position, the action of the chloroform being greater the higher the head is held. Dr. Langenbuch (Berlin) believed that in desperate cases it was allowable to keep up the movement of the heart by direct introduction of the (aseptic) hand into the opened pericardium. Most of those present, however, thought this a risky method of treatment, though Dr. Langenbuch maintained that, with efficient asepsis, the proceeding would not be dangerous to life.

Hypnotism in Midwifery.—In the *Gazette des Hôpitaux*, M. Dumontpallier reports a case of delivery during hypnotic sleep. The patient, a young woman, aged twenty-four, was admitted into the Pitié Hospital in the sixth month of pregnancy in order to be treated for pains in the uterus. The patient was easily thrown into hypnotic somnambulism by pressure on the vertex and by verbal suggestion; these measures were of themselves sufficient to relieve her pain. Later on, in the beginning of labor, hypnotism was again tried. The uterine contractions took place about every ten minutes, and lasted from one minute to one minute and a half. During somnambulism the patient distinctly felt the contractions, but said they were not painful; when not under hypnotic influence, however, the pains became intense, and she begged to be put to sleep again. Toward the end of labor, the pain became so severe that it was found impossible to keep her in a state of hypnotism. During somnambulism the contractions were more powerful and shorter; the interval between them was only four minutes. M. Dumontpallier reserves his opinion as to the effect of somnambulism on the frequency and force of the contractions, and on the duration of labor. While the patient was in that condition she was perfectly conscious, and talked freely with the people about her. In making a comparison between the analgesia produced by somnambulism and that by chloroform in midwifery, the author states that they differ only in the fact that under chloroform cutaneous sensibility remains intact, while in the somnambulistic state it is extinguished.—*British Med. Journal.*

Optic Neuritis in the Prognosis of Tumors of the Brain.—Messrs Walter Edmonds and J. B. Lawford write, in the British Medical Journal: Mr. Horsley, in his interesting communication published in the Journal of April 23d, gives three cases of tumor of the brain, on which he operated. In two of these it appears that there was not optic neuritis, and in these two recovery ensued. In the third, a case of cerebellar tumor, there was optic neuritis, and this patient died. To these may be added Dr. Hughes Bennett's and Mr. Godlee's case, in which optic neuritis was present, and a case of cerebellar tumor, with neuritis, recently operated on by Mr. Bennett May; both of these were unsuccessful. Thus, out of five cases, the two which had no optic neuritis recovered, while the three which had neuritis died. It may be that this coincidence is accidental, for recoveries take place in some cases of head injury and cerebral abscess in which neuritis has occurred; but still, its presence must be taken to indicate some complication which is probably harmful, and makes it important that, if possible, tumors of the brain should be recognized before the onset of optic neuritis, and, therefore, without its diagnostic aid.

Etiology of "Erysipeloid."—Dr. Rosenbach (Göttingen) said that he had succeeded in cultivating a micro-organism in a pure state from cases of "erysipeloid" diseases; he had satisfied himself that it was neither a bacillus nor a coccus. It occurred in closely-woven threads of very different length, some straight, others spiral, or irregularly wound. The branched appearance presented by the threads was an optical delusion. The micro-organism was most nearly allied to *Cladothrix* (Cohn), but it was not *Cl. dixotoma*. Persons engaged in trades which led them to handle putrefying animal substances, as, for instance, cooks, butchers, tanners, fish and game sellers, and cheese dealers were most liable to infection. Commonly the disease appeared on the hands. He had made some experiments by inoculation on himself; the disease was not at all dangerous.

Kussmaul's Treatment of Intestinal Obstruction.—This method proved successful in a remarkable case reported by Dr. Paul Sandoz, of La Chaux-de-Fonds. The patient was a tabetic man, aged thirty-five, who had suffered for ten days from stercoraceous vomiting, incessant hiccough, enormous abdominal distension with absolute stoppage of the bowels; these symptoms depended, in the opinion of Dr. Sandoz, on a temporary paralysis of the muscular coat of the intestine. The stomach was washed out twice daily for ten successive days. On each occasion this at once relieved the vomiting and hiccough for several hours, but no stool was passed till the tenth day. Dr. Sandoz has no doubt that his patient's life was saved by the treatment.—*British Med. Journal.*

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. IV. SATURDAY, JULY 9, 1887. No. 1.

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A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

Books for review, and all communications relating to the columns of the journal, should be addressed to the EDITORS OF THE AMERICAN PRACTITIONER AND NEWS, Louisville, Ky.

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THE SOURCE OF MUSCULAR ENERGY.

Elsewhere we translate from the proceedings of the Academy of Sciences a report from Chanveau and Kaufmann on the determination of the co-efficient of nutritive and respiratory activity in the muscles in rest and at labor, which has a most interesting bearing on the question of dynamics as involved in physiology.

These experiments, if free from error, go to prove that combustion in the muscular tissue is the exclusive source of all the force disappearing in the muscles during their activity.

The current of nerve force passing from the cerebro-spinal centers to each muscle or group of muscles and determining contraction mainly acts the part of the current of electricity that sets off the torpedo. It simply determines the combustion that leads to the explosion.

There is this difference in the action of the two currents. The electric current sets off the explosive, and this is all at once consumed, while in the animal organism the nerve current keeps up the combustion for a considerable length of time or until the material is gradually exhausted. Just so long as the discharge of the nerve current is continued, the combination of oxygen with the oxidizable materials continues and contraction is maintained until there no longer exists material in the available blood-supply capable of being oxidized under the existing conditions. Relaxation of the muscle then necessarily follows, or this relaxation may be brought about at any time by the withdrawal of the nerve current.

It may be, too, that each particular nerve center may become exhausted. For instance, if we use one arm until its muscles no longer respond, until fatigue is complete, we may still use the other, but it will become fatigued much sooner than if it had been the first one used. It is clear in this case that it was not the exhaustion of the supply of fuel that caused the first arm to give out, for on using the other we find fuel still in the blood. It was either then a fatigue of the nerve center or of the muscular tissue, or possibly of both, that first took place.

It is probable in these cases, though we use the term combustion, that there is really no giving off of heat in the process, and that the force employed in contraction does not for a single instant take the form of heat, but that it is transformed at once into a kind of magnetism that draws the molecules or cells of the muscles nearer together in the line of their polar diameters. If this be the case we can see at once why the temperature of the body is not materially altered even by the most violent exercise, no matter how rapidly it may be intermitted.

If the combustion produced heat and this were then changed into the force of contraction, at every intermission we should have an elevation of temperature, and it would be possible by rapid intermission to produce at will a temperature that might be destructive to the organism.

THE MITCHELL DISTRICT MEDICAL SOCIETY.

The recent meeting of the Mitchell District Medical Society at French Lick is said to have been one of the most successful in the history of that vigorous organization.

A large number of excellent papers were read, and the discussions were of unusual interest.

The Society now numbers over four hundred members, and embraces much of the best talent in Indiana. Louisville was well represented in the last meeting, and the visitors speak in glowing terms of their entertainment both by the profession and the people at the popular watering-place.

The Society meets semi-annually, and will have its next meeting at Seymour, on the last Thursday and Friday before Christmas.

The following officers were elected for the ensuing year: President, G. Q. Orvis, Seymour; Vice-President, J. D. Maxwell, Bloomington; Secretary, G. W. Burton, Mitchell.

We hope to be able in our next issue to have a report of the proceedings, and from time to time expect to publish some of the most interesting papers.

Notes and Queries.

Editors American Practitioner and News:

Since my essay upon tuberculosis and its antiseptic treatment appeared in the pages of your journal (April 16th and 30th), I have been often questioned as to the inhaler and preparation of carbolic acid employed.

The inhaler is made by Riker, 1227 Broadway, N. Y.

The carbolic acid must be chemically pure.

The solvent employed must, neither by itself, nor by any impurity or addition contained in it, produce decomposition in the acid employed.

It is rather the mode of administration than the quantity of carbolic acid which gives rise to toxic symptoms. It must be given in small doses, well diluted, often repeated.

Nearly, if not all the accidents imputed to the use of carbolic acid, are produced by substances associated with it, that is, impure acid has been used, or decomposition has ensued from the introduction of foreign substances in the medicinal solution. The acid of commerce melts at 33° to 35°, the pure acid only at 43° C.

I employ the acid prepared by the Declat process (phenic acid), and have always found it reliable in uniform strength and purity.

Great importance has been attached to the appearance of black urine. When we remember that a trace of ammonia, or of pus, will convert carbolic acid into aniline, we see how little regard should be given to this symptom.

My attention has just been called to a coincidence. You began the publication of my article on the 16th of April, and the Journal of the American Medical Association of that date (Vol. viii, No. 16, p. 444) has the following correspondence from Paris:

"In a lecture on 'Antiseptic Pulmonary Medication' recently delivered, Prof. Dujardin-Beaumetz says that antiseptic pulmonary medication, such as it may be imagined in an ideal manner, constitutes the most important therapeutic measure for pulmonary affections. The air being the greatest factor of the contagiousness of diseases, if we could succeed in removing from it the infectious germs which it contains, we would have rendered the greatest service to medicine and to hygiene."

I believe I have demonstrated that it is *au fait accompli.*

GHISLANI DURANT.

NEW YORK, June 4, 1887.

THE LOUISVILLE SURGICAL SOCIETY.—A new society bearing this name was this week organized by some of the leading surgeons of the city. A constitution and by-laws were adopted at a preliminary meeting on the 6th inst., under which it is prescribed that the membership shall be limited to twelve fellows, that the meetings shall be held monthly, and that each member shall represent some department of surgery, upon which it shall be his duty to prepare a paper embodying a review of the progress made in this department during the twelve months preceding the date of the meeting at which the essay shall be read. The officers are as follows: President, D. W. Yandell, M. D.; Vice-President, J. M. Mathews, M. D.; Secretary, E. R. Palmer, M. D. The scheme of organization is admirable, the members able and energetic, and effective work may be confidently predicted of the new society.

THE MISSISSIPPI VALLEY MEDICAL SOCIETY will hold its regular annual meeting at Crab Orchard, Ky., July 14th, 15th, and 16th. An attractive programme has been prepared, a large attendance is promised, and a profitable meeting expected.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÀ."

VOL. IV. [NEW SERIES.] LOUISVILLE, KY., JULY 23, 1887. NO. 2.

> *Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.*—RUSKIN.

Original Articles.

BERGEON'S TREATMENT OF TUBERCULOSIS.

Is it an Important Improvement of or an Important Addition to Medical Therapeutics?*

BY O. T. SCHULTZ, M. D.

Ever since Koch demonstrated that the cause of tuberculosis is the bacillus tuberculosis, it has been the study of clinicians and of experimenters to discover some means of destroying this bacillus, or of rendering its habitat unfit for its existence or growth. Various parasiticides have been at various times recommended by authors, thus far with but indifferent success. The two latest innovations brought before the profession are Kremianski's anilinization of the blood and Bergeon's rectal injections of sulphuretted hydrogen.

Kremianski's discovery seems to have died in its infancy, when its first victim thought it better to enter the higher realms of life than to tread longer the ways of this world with a solution of aniline coursing through his veins. Bergeon's method promises to redound to the profit of instrument-makers, if we may judge from the amount of apparatus required for its employment. A great boom is being worked up in its favor, and long before its real merits have been established much pressure is brought to bear on physicians to induce them to invest in expensive implements for the carrying out of the measure.

If there were any proof forthcoming that the bacillus tuberculosis were destroyed by this method of treatment, or its *nidus* were rendered unsuited for its existence, the clamor now raised in favor of the method might be justified; even if the arguments *pro* and *con* in its employment had not been all heard, there would still be hope of finding some way of so modifying or improving this manner of treatment that the desired good could be accomplished.

The proof, however, is all the other way. It has been proven that sulphuretted hydrogen, to which the good results that attend this method are attributed, does not destroy the bacillus or render the conditions of its life impossible, and while amelioration of certain symptoms has marked the treatment in some cases of consumption, no case of tuberculosis has ever yet been cured by it.

There is no scientific ground for holding the treatment to be specific in tuberculosis, and no warrant, based on clinical experience, for the hope that it will ever indirectly effect a cure.

The good effects of Bergeon's method are said to be a rapid decrease in cough and expectoration—the appetite returns, sleep is secured, hectic fever ceases, sweats disappear, and body weight increases. These beneficial effects are claimed to be due to the sulphuretted hydrogen, and since this drug does not affect the bacilli, they are explained by its action on the inflamed lung tissue. That the above effects are really obtained in the treatment of some consumptives, is attested by the uniformity with which they have been observed by all who have used this method of treatment. All reporters emphasized the presence of a profuse muco-purulent expectoration, and in many of the reported cases the consumption is traced to an unresolved pneumonia. The same benefits have been obtained from this method in simple chronic bronchial catarrh, complicated or not complicated with asthma or emphysema, and in whooping-cough.

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*Read before the Posey County (Ind.) Medical Association, May 3, 1887.

Some patients do not tolerate the injections. Some total failures are reported; some cases in which the profuse expectoration having greatly diminished, the patient at first improved in appearance, weight, and strength, but fever continued, and finally emaciation again increased and hectic again appeared; some patients improved so they could do light work, and then again got worse; in some cases life seems to have been shortened; no case was cured. Professor Wood (Therapeutic Gazette, 1887, page 220) found that water saturated with sulphuretted hydrogen, when given by the mouth in one half to one ounce doses, repeated three to five times a day, or by enema two to three times a day, would yield results in this disease identical with those of the rectal injections of the gas.

With these results of this treatment of tuberculosis before us, are we, in regard to Bergeon's method, "in the face of an important improvement of, or an important addition to, medical therapeutics?"

I think neither. Certainly not with regard to sulphuretted hydrogen, the remedy employed. For sulphur, the sulphides, and sulphurous acid were vaunted as specifics in tuberculosis by our forefathers in medicine. They had been found of great value in the whole list of pulmonary troubles for which the gas is now recommended. In chronic coughs, with profuse expectoration, sulphur is a valuable remedy to this day. Calcium sulphide has been held to be a specific by homeopathists ever since the founding of that school, when inflammation, wherever located, especially in scrofulous subjects, is about to terminate in suppuration. Ringer claims that it has no equal in preventing suppuration, or in hastenting maturation and the termination of the suppurative process, where pus has once formed, while Phillips holds the same opinion, and has seen good effects from this remedy when the resolution of the exudation of pneumonia is delayed, or purulent dissolution of the exudation sets in. The experience of ages has failed to establish any specific virtue of sulphur preparations in tuberculosis; it has, however, established the eminent resolvent and maturative powers of these agents, and more especially of calcium sulphide, whether the inflammatory process be localized in the cellular tissue, in the glands, in the bones, or in the cutaneous or mucous surfaces of the body, and most certainly when it occurs in strumous subjects. The good results that have attended the use of sulphuretted hydrogen by the new method simply confirm past experience. The drug has resolved the inflammatory products of neglected pneumonia; it has relieved the *simple* inflammation of the lung tissue or of the bronchial mucous membrane, that, to a certain extent, always accompanies the *specific* inflammation, but it has failed to exert any influence upon the tubercular disease.

In my own practice I have for years administered calcium sulphide according to these principles, with the most brilliant results in cases of unresolved pneumonia, simple chronic bronchial catarrh, with abundant expectoration, phthisis, with intercurrent pneumonic inflammation, or attended with great bronchial catarrh, but with entirely negative results as to the tuberculosis as such.

In illustration let me briefly report the following cases:

A boy, aged four years, had pertussis, and then catarrhal pneumonia; he was first seen February 5, 1887. Inflammation gradually spread through the whole extent of both lungs, the temperature at the height of the disease being 105°, pulse 160, respiration 80 to 100.

February 28th, morning temperature 100°, pulse 120, respiration 40; hectic flush, bathing sweats, extreme emaciation, very loose cough, with large bubbling *râles* over both lungs; appetite good. Calcium sulphide, one twentieth of a grain, with sugar of milk, every four hours, and cod-liver oil and syr. ferr. iodid. were given. There was very rapid improvement in strength with abatement of cough and the large, loose *râles*. This treatment was continued until March 24th, when he was found with measles; temperature 103°, pulse 160, respiration 48. Next day the temperature was 101°, pulse 120, respiration 60; hepatization in right lower and left upper lobes.

March 31st. Temperature 100°, pulse 112, respiration 40; general and lung condition as on February 28th, but greater wasting and greater prostration. Calcium sulphide, oil, and iron were resumed.

April 8th. Temperature normal, pulse 120, respiration 40; has gained in strength, hectic flush and sweats much improved, cough rare; dullness and large and small loose *râles* in right middle lung, some hard *râles* in upper and lower right lung. Left lung clear. He has now almost no cough, but is extremely short winded.

Girl, aged ten months, sister to above; she had first pertussis and catarrhal pneumonia, and later measles with a second catarrhal pneumonia. The pneumonias in the sister ran the same course as in the brother, save that in her the first was the milder, while the second was the severer attack. The respiration for many days ranged from 80 to 100. In this case the temperature fell to normal as soon as resolution of the pneumonias was established. Rapid clearing up of the lungs and recovery of strength were noted after the use of calcium sulphide, oil, and iron.

That the rapid increase in strength in these cases, the cessation of the sweats, the diminution in the bronchial secretion, the prompt clearing up of the hepatized lung tissue, and the whole change for the better was largely due to the calcium sulphide is shown by the following case, in which it was the only medicine given:

Man, aged forty-two, subject to asthmatic seizures, chest of emphysematous build, took sick with croupous pneumonia in May, 1884, the left upper lobe being first involved, and when convalescent, on the twelfth day, exposure brought on an inflammation of the right lower lung. He recovered his strength fairly well, but continued to have some cough and some dyspnea, on exertion, until November 9, 1884, when croupous pneumonia developed in the right lower lung. It was a very bad case. Patient was entirely unconscious of himself for a week, voiding feces and urine into the bed, in consequence of which, and careless nursing, a bed sore, laying bare the bone, developed over the sacrum. He was dismissed at his own request on the 23d, with resolution well under way, greatly emaciated, very weak, and with a temperature of still 100°.

On December 26th he was found with face flushed, perspiration streaming from him, unable to help himself in bed from weakness, and excessively emaciated; morning temperature 101.5°, pulse 112, respiration 28–32; cough very frequent, very profuse expectoration of almost pure pus. A cavity was found in upper right lung, dullness, and large bubbling *râles* in lower right lung, dry *râles* and condensation in a small spot in the left upper lung. Calcium sulphide, one twentieth of a grain, was given every two hours.

On January 3, 1885, no fever, no sweats, great decrease in cough and expectoration, lung clearing up, considerable increase in strength.

January 19th. Respiration, pulse, and temperature normal; lower right lung clear, crackling and snoring *râles* in upper right lung, with signs of cavity; has gained greatly in strength and flesh, small, purulent expectoration, rare cough, sound sleep at night without sweating. He took the sulphide for about two months, was ready for his work that spring, and has now the appearance of a strong, healthy man. He does all the lighter work pertaining to a farm, but says that he can not stand *hard* work, and that he soon gets out of breath.

Woman, aged thirty-two; seen in June, 1875; had been coughing for years, now is bed-ridden, all symptoms prognosticate speedy death from consumption; hectic fever, immense purulent expectoration, excessive emaciation, bathing sweats, a large cavity in right lung. A course of calcium sulphide rapidly reduced the expectoration, the fever and the sweats disappeared, strength and some flesh returned. A milk diet, freedom from work, cares, and exertion, and healthy surroundings have enabled this woman to live along in moderately good health until this day, with but one serious backset, in 1878. She has since carried and given birth to two children, the last one year ago, without, however, suckling them, and no deleterious influence has been thereby exerted upon her consumption.

Many similar cases I could report, and with especial frequency have I seen the resolvent action of calcium sulphide manifest itself in cases of croupous pneumonia, in tubercular, scrofulous or asthmatic subjects, when the second week would draw to a close without the in-setting of resolution. A day's course of hourly or two-hourly doses of one fiftieth to one twentieth of a grain of calcium sulphide would establish a free and copious expectoration, with all the signs of loosening in the hepatized lung, the clearing process continuing until the lung was again resonant. I am confident that in this way chronic mischief has been very frequently averted.

But in the truly and purely tubercular disease the action of calcium sulphide has in my hands been *nil.* In fibroid phthisis it does not bring about resolution or retrogression of the process. In a case of this form lately seen, with large and progressive infiltrations in both upper lungs, with constant soreness and frequent sharp, stitching pains through the upper chest, moderate continued fever, progressive emaciation, rare cough, small purulent expectoration, and no sweats, the drug given in the usual dose of one twentieth of a grain every two hours, gave rise to some dyspnea, and had to be abandoned. In cases in which the lung tissue seems rapidly to liquefy under the influence of the disease, notwithstanding profuse expectoration of almost pure pus, it has shown no effect. Just as Ringer finds the sulphide to exert no influence on the specific suppuration of syphilis, so also it has in my hands proven itself useless in the specific suppuration of tubercular consumption. It will relieve the inflammation in the lung tissue, or of the bronchial mucous membrane, when due to mere irritation from the specific disease, or when brought about by a superadded catarrhal or croupous inflammation, but it completely fails to reach the tubercular process itself.

The benefits of sulphuretted hydrogen enemata in certain cases of consumption are undoubtedly great, and can not be called into question, but they are attributed by the originator of the method to a wrong cause, to a supposed specific virtue in this remedy; they are not apparent in every case of tuberculosis; they cease in cases of real tubercular disease as soon as the accompanying foreign elements for which the drug is indicated have been removed; they can be demonstrated in many forms of pulmonary trouble which are not tuberculous; their recognition is no discovery of Bergeon's, and even the false claim of the specificity of sulphur preparations was raised away back in the medical dark ages. Medical science is not at all advanced by the bold theories of Bergeon, for, although in times recent, the disease has been found to differ greatly as to the individual, the form, the origin, the course, the symptoms, and the duration, no more definite indications for its treatment are furnished by him than were advanced by the physicians of a century and more ago. Nor does the manner of introducing the remedy into the economy seem to me to be a very a great or important advance in medical therapeutics.

The rectal injections can not be employed in all cases. We learn that some persons do not tolerate them, and that they frequently give rise to violent colic. Intestinal ulceration, tubercular or otherwise, should constitute a contra-indication. Individuals that have at some time or other suffered from pelvic inflammation, from peritonitis, from enteritis, from dysentery, or from typhoid fever, would seem to be unfit subjects for this method of treatment. Patients with heart disease would probably not bear it, nor would perhaps those in whom the breathing space of the lungs has been greatly reduced.

The rectal injections are, in themselves, not free from danger. Phillips believes that the gas may be absorbed in the intestines, with symptoms of marked nerve depression. Just as overdoses of the sulphides may cause insensibility and speedy death, so overdoses of sulphuretted hydrogen, introduced by the rectum, may cause death, as has been shown experimentally on dogs. We have so far no reliable means of gauging the exact amount of the gas which is introduced. It seems also that the tolerance of different individuals for this remedy varies between wide limits, and that very small doses may produce disastrous results. Thus in my case of fibroid phthisis, the patient, after taking two hearty doses of calcium sulphide, one twentieth of a grain for twenty-four hours, had such difficulty of breathing that she could no longer lie down, but had to sit upright in a chair by an open window to get her breath; but this dyspnea ceased when she, on her own accord, stopped the medicine. And in a case in the University Hospital, of Philadelphia, after an injection of one quart of a mixture of equal parts of carbonic acid and sulphuretted hydrogen, within three minutes the man was unconscious and apparently dying; the breathing was 100 per minute and the respirations so shallow that they could hardly be observed, the pulse became at once very rapid, feeble, and imperceptible at the wrist. The odor of the gas was apparent in the breath. Under treatment the symptoms vanished in fifteen minutes as abruptly as they had set in.

The method of administering the remedy by rectal injection is unnecessary and unadvisable. Wood has shown that water charged with sulphuretted hydrogen may be given by the mouth in one half to one ounce doses, three to five times a day, and that it produces the same results as do enemata of the gas, and is preferred by the patients. Ringer dissolves one grain of calcium sulphide in half a pint of water, making a fresh solution daily, and gives a teaspoonful to a tablespoonful every one or two hours. Calcium sulphide may also be given in one fiftieth, one twentieth, one tenth, and one half grain doses, rubbed up with sugar of milk, a dose every hour or two, or in the form of gelatin-coated parvules. Sulphurous acid may be administered in solution by fumigation or by inhalation. All these methods of introducing the remedy into the system are more preferable, nicer, easier to the physician, and more liked and better borne by the patients than the gaseous enemata, and, so far as we know, equally efficacious in those forms of pulmonary trouble for which the sulphur preparations are really indicated. With them there is no need of cumbersome apparatus and of skilled labor in preparing the gases, no danger of rupturing a gut, or of sudden death from mere prostration or from suspended heart or lung action.

At this stage of the question we can only give Bergeon credit for having called the attention of the profession to an old, much-neglected and much-abused remedy, of exceedingly great value in certain pulmonary affections when rightly used. His method of administering the same we must condemn as nasty, cumbersome, and unnecessary, yielding no better results than what thousands of physicians every day attain by the internal administration of sulphur preparations. The claim of its being an important improvement of, or an important addition to, medical therapeutics we must reject as unfounded.

Mt. Vernon, Ind.

"IS MALARIA AN ENTITY?"*

BY T. B. GREENLEY, M. D.

The term malaria is variously defined as miasm, miasmata, mephitic gas, foul air, etc. Like some other substances or bodies in nature it can not be made tangible to the senses, although we have evidence of its presence by the effects it produces. So far it has never been, by any chemical reagents or other means, isolated from atmospheric air. The atmosphere of marshes and localities where its deadly effects were prevalent has been analyzed, but was found not to vary from that of healthy localities. But shall we deny its existence because we can not make it tangible to our senses? We can not weigh light, caloric, electricity, or magnetism, yet we know they exist because they produce certain effects.

The general supposition is that the miasm, which we term malaria, is the product of fermentation or decomposition of vegetable matter; and the elements pre-requisite to this condition are heat and moisture. It has been fully demonstrated that heat alone will not generate the foul air; as ships in good sanitary condition have cruised in tropical climates, some distance from land, for months without their crews being affected with diseases due to malaria. And we know that moisture alone will not produce it, as sailors never have malarial diseases unless they go ashore. It is virtually a land production, or we might say of telluric origin. It seems to be essential that a certain amount of heat must exist in connection with moisture for a definite time in the presence of vegetable matter in a state of decay. Moisture may be in such excess as to prevent deleterious results, as in seasons of heavy rainfall; the marshes and lowlands being kept flush of water, the poisonous air is not generated. It is in localities where, after overflows, the debris or sediment is left subject to decomposition by high temperature, that we have the most concentrated miasm, as in the deltas of great rivers, etc.

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* Read at the June meeting of the Kentucky State Medical Society, 1887.

"Of the precise nature of malaria nothing certain is known; even its existence has been denied by some." In behalf of this negative opinion has been cited the fact that ailments regarded as malarial in character occur in localities where no evidence of vegetable matter in a state of decay exists, such as argillaceous and sandy soils, as well as mountainous districts. Arguments of this kind were maintained by the late Drs. John Bell and William Ferguson many years ago. In many instances the non-existence of vegetable matter in certain soils is only apparent. Were we to apply the test of chemical analysis or the microscope, no doubt the contrary would be manifest. Then we may have sandy or argillaceous soils in the vicinity of a marsh from which the winds may waft the foul air so as to affect its residents. I presume that very few instances of miasmatic fever could be cited as originating in purely sandy or argillaceous soils unaffected by the proximity of low or marshy lands. As to mountainous districts, they are not always exempt from malarial fever, owing to the possibility of the presence of swampy or marshy localities where vegetation may exist in due quantities. Some of the earliest writers attributed perodical fever to causes independent of marsh miasmata. Hippocrates regarded it as due to redundancy of bile in the prima viæ; while Galen attributed it to a vitiated condition of bile. Others to malnutrition, recurrence of waking and sleep, the periodic motions of the earth, lunar influence, the alternation of day and night, meteoric influence, the change in the position of the body from erect to the recumbent, etc.

We still occasionally meet with an individual who denies the existence of such a thing as malaria. Recently quite an ingeniously written paper on this subject was published in a medical journal, the name of which I have forgotten as well as that of the author. He accounted for the occurrence of intermittent fever on the ground of the natural tendency of the system to assume periodicity in various diseases, and explained how a person might take a chill independent of malarial influence. Given a locality in the vicinity of a lake, pond, or any body of water, the atmosphere of such locality would naturally cool down sooner of an evening than if further distant from the water, which reduced temperature would produce a chilly effect on the resident. The system being subject to those periodical alternations in the temperature of the atmosphere soon becomes impressed, so that in a shorter or longer time a pronounced chill results. He argues that after the system once comes under the influence of this character of periodicity the disease is thoroughly established, and of course requires treatment to eradicate it. There is no argument to account for the remittent type of fever or any other variety of malarial trouble. Nor does he point out how a chill is produced in localities uninfluenced by the proximity of water.

To a man who has practiced medicine over forty years in a malarial district and observed all the phases of disease due to its influence ordinarily occurring in the latitude of 38°, it would seem to be a work of supererogation to try to convince him that no such a thing as malaria existed; that, in other words, it is a nonentity; especially is this so when he is backed up by the writings of hundreds of the most eminent members of the profession who have witnessed its ravages over most of the earth. It is said to prevail generally through the torrid and temperate zones, according to the peculiar conformation of the earth's surface. "Dr. Drake* says the fever zone extends in America as high as 44°–47° north latitude; and according to Huss, in Europe, which is much warmer, as high as 62°." If it is true that malarial diseases reach as high as 47°, it will be observed that nearly the whole territory of the United States is embraced within the fever district. The diseases due to malarial influence of course are much milder in the northern part of our country, growing more severe as we descend toward the Gulf. Within the tropics of our hemisphere the malignancy of the cause seems to be more intense, and gradually diminishes in virulency as we approach the temperate zone in South America. In Europe the countries most affected are those whose topography is like ours, comprising the valleys and plains. Those more especially affected are Hungary, the Netherlands, Italy, Greece, and parts of Russia, and the country on the lower Danube. In Asia we find India and Bengal more particularly scourged with malarial diseases. In many localities on the coast of Africa we find diseases due to malaria prevailing with great virulence. Then the question might be asked, Where diseases prevail over such a vast extent of the earth's surface, acknowledged to be due to malarial influence by our best observers, how can its identity be denied?

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*See paper of Dr. Caldwell in Cincinnati Lancet and Clinic, July 31, 1886.

The natural habitat of malaria is in rural districts, as we frequently observe it to disappear from its home as cities are built, or agriculture with due drainage encroaches upon its precincts. These facts confirm the theory of its telluric origin. There is, perhaps, as much mystery attached to the different phases of its manifestations as there is to the verification of its entity. In the same locality we may have the quotidian, tertian, and quartan, the double quotidian and double tertian varieties of intermittent; the simple remittent, the congestive remittent, as well as the congestive or pernicious intermittent with its varieties. Now how are we to account for this multiform character of disease resulting from the same cause? We must account for it on rational principles, or say they are due to separate and distinct causes. In the first place, all persons are not equally susceptible to morbid impressions; or, in other words, some possess greater power of resistance to the ingress of the cause of disease than others. Also, it is frequently the case that some in the same locality are not so much exposed to the action of the cause as others. Some of the same family may sleep in rooms affected by damp cellars, or more exposed to effluvia from a pond or swamp; while others may sleep in upper stories and only receive a mild impress of the cause, and have simple intermittent, while those in the lower rooms have remittent or the congestive variety. We have an illustration of this view of the matter in the manifestations of some other diseases; for instance, scarlet fever. I have witnessed the presence of all three varieties of that disease in the same family at the same time.

We must, of course, account for such phenomena, either on the theory of greater power of resistance on the part of the system, or that some receive a larger dose of the poison than others, due to a greater degree of exposure.

Many of our best and ablest men have held to the view that malaria is the cause of other diseases as well as those ordinarily termed periodical fever. We will mention the names of some who regarded it as the cause of yellow fever. Dr. Rush, "Controversies on the Contagiousness of Yellow Fever;" Dr. Johnson, author of "Influences of Tropical Climates on European Constitutions;" Dr. McCullough, "On Marsh Fever;" Dr. McWilliam, "History of the Expedition of the Niger in 1841 and 1842;" Dr. John Hunter, F. R. S., etc., "Observations on the Diseases of the Army in Jamaica;" Dr. Robert Jackson, "History and Cure of Febrile Diseases in the West Indies;" Dr. Devise, "Treatise on Yellow Fever;" Dr. E. N. Bancroft, "Essay on Yellow Fever;" Dr. Benj. Mosely, "A Treatise on Tropical Diseases;" Dr. Doughty, "Observations and Inquiries into the Nature and Treatment of Yellow or Bulum Fever, etc.;" Dr. O'Halloran, "Remarks on the Yellow Fever of the South and East Coasts of Spain;" Dr. Chervin, "Contagion or no Contagion of Yellow Fever;" Dr. Gilkrest, "Yellow Fever in Europe and America," in Cyclopedia of Practical Medicine; Dr. T. S. Bell, Lectures, University Louisville.

Ordinarily yellow fever is very similar in its characteristics to remittent fever of the congestive type. In this disease we frequently have the bilious tinge, the sick stomach, and in severe cases the black vomit. In fact there is so little difference that the one has frequently been mistaken for the other. What is known as the swamp or congestive fever of the South is frequently as fatal as of yellow fever; cases frequently dying in three or four days from the onset of the chill. There are many similarities in the history of the two diseases. They both prevail in the same locality at the same time; both are diseases of warm weather, and both are cut short by frost. In fact yellow fever approximates much closer in its phenomena to congestive remittent, than the latter does to some other varieties of fever of acknowledged malarial origin. The same may be said of cholera as it regards the congestive or pernicious type of intermittent fever. In other words, it may be said, that while yellow fever has its congener or analogue in congestive remittent, cholera has its in the pernicious chill. In cholera we have the congestive stage with vomiting and purging as in the congestive chill, and death in the cold stage as in that disease. Cholera, like the congestive intermittent, prevails in warm seasons and in the same localities where malaria exists, and in the same way is arrested by the onset of frost.

I feel satisfied that I have seen severe attacks of dysentery that were mainly due to intense malarial influence, and am confident that it plays an active part in the production of other troubles than those ordinarily credited to it. I have had ophthalmia, diarrhea, and neuralgia, prevailing in the fall season when periodical fever was common, relieved almost immediately by the free use of quinine.

But I am digressing. "Is malaria an entity?" Since the germ theory of disease has become so fashionable, a bacillus is said to have been discovered that will account for the existence of malarial diseases. This mycrophite, of course, is called bacillus malariæ. The theory that a germ or mycrophite is the cause of periodical fever is not of modern origin. Nearly a century before Christ a writer spoke of such a probability. Griesinger, in 1855, alludes to its possibility. In 1866 Dr. Salisbury,* of Cleveland, thought he had found the true cause in the alga of the germs palmella. In 1870 M. Bolestra described a "species of infusoria taken from the Pontine marshes, which he regarded as the specific cause." "In 1879 Klebs and Crudelli discovered in malarial districts numerous spores which developed into long, segmented, thread-like rods in culture fluids. These bacilli malariæ they claim to have found in the blood of fever patients. Cevi and others substantiate their claims." Sternberg does not admit of their correctness. Laveran, in 1881, found what he termed the suboscillaria malariæ. The matter seems to be still unsettled and enveloped in much doubt. Admit that periodical fevers are due to the presence of germs or bacilli, and we would be as much troubled as ever. We should have some dozen varieties in order to produce the various varieties of the fever. We would have the quotidian, tertian, and quartan germs of the simple intermittent, as well as the double quotidian and double tertian. Then a more virulent germ to produce the pernicious chill. We would also have several varieties to bring on the different grades of remittent, running from the simple to the deadly swamp congestive fever. This is not an unreasonable supposition, when it is claimed that two varieties of germs are essential to produce the two grades of typhoid fever. Then it would be hard to account for the different degrees of action of the same germ, say in the phenomena observed in the intermittent and remittent. We would be puzzled to say why the germ remained quiet in the system from twenty-four to seventy-two hours, and then at a certain time made a new onset so as to produce a cold stage. A germ that gives so long a resting time to the system must be different from the one that keeps up continued fever. Should it become positively verified that malarial diseases are due to a micro-organism or organisms of different varieties or form, it would only afford us satisfactory knowledge of their cause, and not benefit us in the mode of treatment, or in prophylaxis. We now have in possession ample means of combating ordinary cases of periodical fever, and would use the same remedies if we knew they depended on a microbe.

We are all aware of the intangible character of what we term malaria, but we know that there are other gases which are deleterious to health besides those generated in swamps or marshes and not infected with germs. We might mention sulphuretted hydrogen, carbonic acid, carburetted hydrogen, ammonia and others. Some of these are, of course, tangible to the sense of smell, but nevertheless are gases deleterious to health and life.

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*American Journal Medical Sciences.

In viewing the history of malarial diseases over the earth's surface, and noting the terrible destruction of human life resulting from it, we must be impressed with its character as an entity. It causes nearly as much sickness in the United States as all other diseases aside from consumption, and a large proportion of the deaths. In 1880* nearly twenty-five thousand people died of periodical fever in this country. Besides this large mortality it is in many instances the indirect factor in destroying life in connection with other diseases.

WEST POINT, KY.

ASIATIC CHOLERA.†

BY J. M. JACKSON, M. D.

There is a malady now threatening our country, having already crossed the Atlantic, which has destroyed more human lives in a short space of time than any other disease known. That disease is Asiatic cholera. With the written literature of this malady you are doubtless all acquainted. I shall, therefore, for the most part, confine myself to my own experience and observations, giving my own personal views as to its mode of propagation, the circumstances under which it can alone be propagated, the best means of preventing its spread, and, lastly, its treatment.

Cholera is, to my mind, beyond a doubt, an infectious endemic. Its infectious principle is in a peculiar microbe, or germ, which can alone communicate the disease. Of this I have abundant proof under my own observations in an extended experience with the disease. I took this same position in a discussion with Dr. R. W. Creighton, formerly of Memphis, in the columns of Western Medical Journal, Louisville, in 1859. Since that time I have had much to do with cholera, and am the more convinced in my views as to its being transmitted by infection.

In support of this position it may not be amiss to refer briefly to its ingress into our country in 1848. We find that, on the 11th of December of that year, a ship landed from Havre at the port of New Orleans with cholera on board. She deposited three cases in Charity Hospital at New Orleans. In three or four days the disease broke out in the hospital, and in a few days rapidly spread throughout the city. From there it ascended the Mississippi River, reaching the city of Memphis on the 22d of December. On the 1st of December another ship from the same port (Havre) arrived at the quarantine grounds on Staten Island with cholera. The disease broke out in a few days among the inhabitants, but, as it was quarantined, it did not reach New York City at that time. If not infectious, why did the disease prevail at those points at those special times, when there had not been a case at either place since 1834? In searching the history of cholera from its invasion of the United States, from 1832 to 1834, the whole weight of testimony is in favor of its transmissibility from one person to another.

But cholera is not without its peculiarities as an infection. Most diseases, if infectious, can and will prevail any and every where whenever their infections powers are brought to bear; further, in most infectious diseases one attack exempts the subject from a subsequent one. While cholera microbes will generate the disease under all climatic conditions, in every inhabitable degree of latitude from the equator to the poles, and as well in the coldest months of winter as in the hottest months of summer, and pays no attention to age, sex, or station in life, yet in not a single instance have its germs been known to vivify or reproduce themselves in a locality free from the direct or indirect influence of limestone water. This is its *sine qua non*. I verily believe that, were lime obliterated from the earth, there would never be another case of cholera.

No sanitary nor unsanitary condition of a city or locality can or will prevent or favor the prevalence of cholera, at any season of the year, should its germs find their way to such locality, provided the place is in anywise influenced by lime; and yet, strange to say, this very article is often used as a prophylactic against the disease. You can never find a case of cholera which has not originated from its special germ or microbe, and not then unless the germ is found in a limestone locality, any more than you can find a stalk of corn without its special seed or germ, and that in a soil where the elements are favorable to its propagation.

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*See last Census report.

†Read at the June meeting of Kentucky State Medical Society, 1887.

I have before stated that cholera pays no attention to season or climate, nor is it influenced by altitude; all that is required is the germ and its one essential, lime. It has prevailed along the low and damp streets of Constantinople as well as in the elevated city of Cabul, near the Pamir Highlands. It would as soon announce its visitation in Quebec or Montreal in the frigid months of winter as in Rio Janeiro or Havana in the flowery months of summer provided its germ finds the required lime.

Cholera is now believed by good authorities to be transmitted only from one person to another, generally along the lines of travel by steamboats and railways.

My first experience with this disease began about the 5th of January, 1849, on the Mississippi River, ten miles below Columbus, Ky. Not a case of cholera had occurred up to that time in that vicinity. One Sunday evening the steamer Iroquois, plying between St. Louis and New Orleans, just from the latter city, landed and buried two corpses which had died of cholera. A Mr. Sampson, with his five-year-old boy, stood by and witnessed the burials. On Tuesday following his child was attacked with cholera, and died the same night. On the following Monday Mrs. M., who had dressed Sampson's child, was severely attacked with cholera, but recovered. On the following Saturday morning Mr. Sampson was attacked with the disease, and died in about five hours. On Sunday his burial was attended by a Mr. S., a bachelor living with Mr. G. The next day Mr. S. was taken with cholera, and died in a few hours. In one or two days thereafter Mr. G. was taken with cholera, and died in a few hours. In less than ten days five of Mr. G.'s negroes were buried, having died of cholera. On the bank of the Mississippi River, six miles above Mr. G.'s, lived a Mr. S. H., whose negroes were related to those of Mr. G., and had visited Mr. G.'s negroes in their sickness. In a few days cholera broke out among Mr. H.'s negroes, of whom five or six died of the disease within five days. In all those cases the disease was readily traceable from the diseased to the healthy subject. The disease was then closely quarantined, and subsided.

Again, a Mr. G. N., on James Bayou, Mo., in the month of May in the same year, returned from Memphis, was seized with cholera, and summoned me to see him. I found him in a state of collapse, and dying. It was on Sunday, and there was preaching appointed at his house on that day. Many persons assembled at his house. I requested them not to go into the house, warning them of the danger. Some fifteen or twenty did go in and see the patient, despite my warning. The patient died before I left his house. In less than five days no less than five deaths from cholera had occurred among those parties, and not a case developed among those who did not go into Mr. N.'s house. The water used for drinking and culinary purposes in all that locality was from wells strongly impregnated with lime.

In July, 1849, a stranger got off a steamer at Columbus, Ky., went out to Blandville, took cholera, and sent for Dr. Thompson, of that town, father of the late Dr. Joseph W. Thompson, of this city. The man died in a few hours. In less than two days Dr. Thompson was seized with cholera and died. Mrs. Thompson was next attacked with the disease, but recovered. A negro woman who had washed the clothing of the sick at Blandville was soon a victim to the disease.

Blandville is near Mayfield Creek, and its vicinity is supplied with water impregnated with carbonate of lime.

In September, 1849, while cholera was prevailing in Hickman, Ky., John C. Willingham, W. L. Majors, and John Campbell, all of Feliciana, Ky., went to Hickman on a fishing expedition, remained a day or two and returned home; all were attacked with cholera and died. Their funerals and burials were attended by their many friends, but not a single case of cholera followed, for the reason that in that vicinity nothing but the purest freestone water is to be found.

I made similar observations during my experience with the disease in its next visitation, in 1866, with the same results; but I will not detain you with a detail of my observations. My object is only to lay before you a suf-sufficient number of facts to show that cholera can only be propagated in a limestone locality, and never, under any circumstances, in a freestone district. That the people at large should dread cholera only during the months of summer is not in reason, since the severest scourges from that disease occur during the coldest weather of the year, as was the case in the United States in 1849.

I have taken the position, and I think the facts observed sustain me, that cholera can only be transmitted by infection. If so, to prevent an invasion of that malady, a rigid quarantine is the only safeguard. This proved so on Staten Island in 1849, as reported by the late Prof. Geo. B. Wood, in his work on "Theory and Practice of Medicine." Without quarantine we are liable to an invasion at any time. And here I may venture the opinion that our country could better afford to abolish all intercourse with foreign powers than to have one case of cholera imported to our shores.

As to treatment, all successful physicians who have had much to do with cholera agree that it is only during the first or cholerine stage that much is to be expected from any treatment. The cholera microbes are active almost from the instant at which they enter the system until their work of death is completed. This requires about twenty hours, during most of which time the patient complains of cramping in the fingers and toes, pains in the bowels, coldness, and a sense of numbness in the extremities, with, at the same time, slight looseness of the bowels. At this time a capsule, or powder, containing one grain of opium, two grains of acetate of lead, one half grain of pulverized capsicum, and three or four grains of camphor, repeated every forty or fifty minutes, will frequently prevent the further progress of the disease. But it is too often that the patient pays no attention to his condition at this stage, and the physician is not called until the case has advanced to its second or confirmed stage; then a more active treatment must be resorted to. By this time violent vomiting, purging, cramping, and cold in the extremities are prominent symptoms. Medicine given by mouth at this time will be rejected by the stomach, and hypodermic injections, together with sinapisms, rubbing, etc., will be our only resource. The microbes of cholera can not withstand the effects of narcotics—narcotize them and they die; hence, morphia should be used hypodermically in such quantities as to produce decided narcotism. In times when hypodermic medication was unknown to the profession, it was almost impossible to administer opiates in sufficient quantities to produce narcotism. I always found my patients to recover if narcotized, but in many cases I was unable to procure such effects. In a case of cholera to-day I would, in the second stage, begin with hypodermic injections of morphia in quantities of one third of a grain, and repeat every twenty or thirty minutes, with increased portions, until I had produced decided narcotism, even if it required several grains to effect that result. My plan would be to narcotize the patient at all hazards—with it life is saved, without it death is sure.

Active astringents and diffusible stimulants are strongly indicated in confirmed cholera; of these, catechu, tannic acid, gallic acid, carbonate of ammonia, camphor, and capsicum are our chief remedies.

In cases of collapse, hot water dressings, the hot bath, quinine in full doses, and such remedies as are potent in collapse from other diseases should be energetically employed.

COLUMBUS, KY.

POISONING BY LOCUST BARK.—Dr. Emery, of Brooklyn, reports the poisoning of thirty-two boys, at an orphan asylum, from chewing the inner bark of the locust tree, which had been stripped from fence posts. This, we believe, is the first instance on record of poisoning from this cause. Locust bark should be investigated chemically.—*Medical and Surgical Reporter.*

Reviews and Bibliography.

Nervous Diseases and their Diagnosis. A treatise upon the phenomena produced by diseases of the nervous system, with special reference to the recognition of their causes. By H. C. Wood, M.D., LL.D. 8vo, pp. 501; cloth. Price, $4.00. Philadelphia: J. B. Lippincott Company. 1887.

What Da Costa's classic work is to general medicine, this new and original treatise bids fair to be to the department of neurology. It does not assume to teach neuro-pathology and the natural history of nervous affections, after the manner of the popular text-books; but, presuming that the physician already possesses the requisite knowledge of these things, it approaches each affection from the clinical side and traces each symptom or group of symptoms back to the lesion or derangement of which it is the expression.

The book is written in the characteristic vigorous style of its able and versatile author, who, many will be surprised to learn, adds to his eminent attainments in other departments of medicine the accomplishments of a learned and skillful neurologist. The author states in his preface that he has had a hospital experience of twenty-five years as a special practitioner in nervous diseases; that he has made the best use of the abundant material and great opportunities thus afforded him for original study in this department of medicine, the present volume abundantly attests.

A work of such origin and authorship can not but meet with general professional favor.

Anatomy, Descriptive and Topographical, in 625 Illustrations. By Carl Heitzmann, M.D. English edition by Louis Heitzmann, M.D. 8vo, pp. 544; cloth. New York: J. H. Vail & Co. 1887.

The issue in this country of this standard German atlas with English text can not fail to delight our teachers and students of anatomy.

The points of excellence in this work are indeed many, and afford the reviewer abundant material for comment.

The drawings, which exhibit every organ of the body, are clear in outline, correct in perspective, and faithful in detail to the minutest figure. The name of each organ is printed clearly either upon it or in the margin with appropriate lines of indication; while the text, so far as space will allow, is exhibited upon the page containing the cut. By this arrangement the student can read with the picture constantly in view, and so avoid the loss of time and confusion of mind which always attend the study of anatomy by the aid of such atlases as exhibit the pictures and the text in different volumes.

The text, though necessarily condensed, is remarkably lucid, and gives the student so full a description of the parts exhibited by each picture, that it would be possible for him to acquire a very considerable knowledge of anatomy without reference to any other work.

Another strong feature of the atlas is its liberal exhibition of regional anatomy. The great surgical spaces are set forth with careful attention to every detail, while muscles, joints, and ligaments are made to exhibit every important relation by means of sections, transverse, horizontal, frontal, and sagittal, which, made upon the frozen cadaver, are here set forth with perfect truth to nature. This feature of the work makes it invaluable to the surgeon.

The able editor and the enterprising publishers have laid the profession of America under no small obligation in the issue of a work which so greatly facilitates the study of the most difficult of medical topics; that they will be rewarded in the sale of large and repeated editions is certain when the merits of the atlas shall be known.

A Companion to the U. S. Pharmacopœia. Being a Practical Commentary and Key to the latest edition of the Pharmacopœia. Second edition. By Oscar Oldberg, Pharm.D., and Otto A. Wall, M.D., Ph.G. Octavo, 1226 pages, 650 illustrations. Muslin, $5.00; sheep, $6.00. New York: William Wood & Company.

The first edition of this work is familiar to many of our readers. This second edition has been prepared to supplement the sixth revision of the U. S. Pharmacopœia. It treats of many drugs and preparations of established worth which the revisers of the pharmacopœia have omitted, gives the English and metric weights and measures side by side, and sets forth much information of value to the practical pharmacist and physician not found in the official publication. The dose of each medicine is also given, and brief mention is made of the medicinal uses of the drugs discussed.

The work is alphabetically arranged and abounds in pictorial illustrations.

A Text-book of Pathological Anatomy and Pathogenesis. By ERNST ZIEGLER, Professor of Pathological Anatomy in the University of Tübingen. Translated and edited for English students, by DONALD MACALISTER, M.A., M.D., F.R.S. Three parts, complete in one volume. 289 illustrations. 8vo, pp. 1118; price, cloth, $5.50; sheep, $6.50. New York: William Wood & Co. 1887.

This is unquestionably the most learned, able, and comprehensive work extant in pathological anatomy and pathogenesis.

Virchow, Billroth, Paget, Rindfleisch, Corneil and Ranvier, Coats and others have given us admirable treatises in pathology, and it will be conceded that the work of any one of the authors named will afford more entertaining reading for the doctor than may be found in Ziegler; but none have cut so near to the bedrock as he, and, therefore, none have produced a work of approximate value to the student who desires to possess himself of the known in this department of medicine.

The author, while having pronounced views upon many debatable questions, never allows theory to warp facts or color truth.

He quotes in the course of the work the discoveries and opinions of between thirteen and fourteen hundred observers, and while making these do abundant service in the construction of the work, never suffers it to degenerate into the form of a compilation, or to lose the zest which is characteristic of an original treatise. In this he shows himself to be not only an able commentator, but a graceful historian.

If pathology were a ripe science, and not subject to endless and incessant disturbances of equilibrium through new discovery, the author's work, as now presented, would leave the coming pathologists as little to do after him as did The Decline and Fall of the Roman Empire the historians since Gibbon's day.

The translator has done his part admirably. The text is singularly free from the taint of German idioms and long involved sentences. His annotations and emendations are well made.

Anæmia. By Frederick P. Henry, M.D., Professor of Clinical Medicine in the Philadelphia Polyclinic. 16mo, pp. 136; price, 75 cents. Philadelphia: P. Blackiston, Son & Co. 1887.

A practical Treatise on Diseases of the Eye. By Dr. Edouard Meyer, Professor A. L'ecole, De La Faculté de Médecine de Paris. Translated from the third French edition. By Freeland Fergus, M.B., Ophthalmic surgeon, Glasgow Royal Infirmary. 207 illustrations and three colored plates. 8vo, pp. 647; cloth, price, $4.50. Philadelphia: P. Blackiston, Son & Co. 1887.

Practical Lessons in Nursing, Maternity, Infancy, Childhood, Hygiene of Pregnancy; Nursing and Weaning of Infants; the Care of Children in Health and Disease. By John M. Keating, M. D., Visiting Obstetrician and Lecturer on the Diseases of Women and Children, Philadelphia Hospital. 12mo, pp. 221; cloth, price, $1.00. Philadelphia; J. B. Lippincott Company. 1887.

Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

In view of the fact that last year in England scarlet fever killed between seventeen and eighteen thousand persons, or about as many as smallpox, diphtheria, and typhoid fever put together, the experiments of Dr. Klein, with regard to the scarlet fever epidemic at Hendon and Marlebone, have been followed with great interest by the medical profession in this country. He has identified a particular microbe as the cause both of the cow disease and of scarlatina, and when he inoculated calves and mice with human scarlatina they exhibited just the same symptoms as the Hendon cows. The most absolutely conclusive experiment would, of course, have been the inoculation of a child with the virus of the cow-disease, but even in the present superabundance of children this test was considered scarcely permissible. The Agricultural Department of the Privy Council have, however, just published a report to a different effect. The dairy farmers were appalled at the injury likely to result to their business from milk being regarded by the public as a possible source of disease, and the Royal Agricultural Society urged upon the Council office the importance of further inquiry, with a view especially to ascertain what precautions might be necessary in the interests both of milk-sellers and of the public. Mr. Axe, a veterinary surgeon, was accordingly charged with the investigation. Unfortunately he has labored under several disadvantages, as he only commenced his investigation five or six months after the event, and gleaned his evidence from the recollections of cattle dealers and herdsmen. He goes so far as to admit that diphtheria, scarlatina, and enteric fever owe a large measure of their prevalence and mortality to the traffic in infected milk, and even believes that some of the contagious fevers of what he calls "bovines" are capable of being communicated to man by this means. He likewise has no doubt that the particular epidemic in question was spread by milk, but he considers that the milk derived its infectious properties not from the disease of the cow, but from some contagion subsequently received. The point is one of the greatest importance. If an apparently trivial and often unheeded ailment of the cow produces scarlatina among those who drink milk, nobody can be safe in consuming it in an uncooked condition. But if the danger only arises when the milk has been brought into contact with a case of human scarlatina, the risk must be rare and remote. The first contention of Mr. Axe, that as dog produces dog and cat produces cat, so the one disease germ will not give birth to another disease germ in man. As, however, Dr. Klein has shown that both germs are the same, this argument falls to the ground. Then he asserts that the Hendon disease was cow-pox, which he describes as an affection of common occurrence among dairy stock, although it is notorious that when the National Vaccine Establishment was desirous of renewing their stock of lymph by animal vaccination they sought in vain during some years for a case of natural cow-pox, such as led to Dr. Jenner's discovery. Mr. Axe suggests that the infection was derived from "some obscure source connected with the dairy," but does not indicate what that source could have been, or how it could, day by day, for about a month, have contaminated the milk sent out. Dr. Klein took infinite pains to ascertain whether there was any antecedent case of scarlatina at Hendon that could have infected the milk, and decided this question in the negative, on what seems to be conclusive evidence. Had the Hendon malady been ordinary cow-pox, it must have been recognized by such skilled observers as Power, Dynter-Blyth, and Dr. Klein, all of whom saw the disease at its height. Moreover, the microbe described by Dr. Klein is quite different from that of vaccine lymph.

Recent experiments appear to show that cocaine increases the absorbent power of the cornea. Dropping fluorescine into a cocainized eye and into a non-cocainized eye at the same time, it was found that in the non-cocainized eye only the superficial layers became fluorescent, but that in the cocainized eye the deeper layers also became affected. When the epithelium was removed from a limited area, and methyl-blue was dropped upon the abraded surface, it alone became colored in the non-cocainized eye, while in the cocainized eye the coloring matter extended through the whole cornea. It seemed clear, therefore, that the effect of cocaine was to increase the absorbent power of the cornea. These experiments, and others of a similar nature, are believed to account for the lesions of the cornea produced after the use of cocaine. It is not yet certain whether these interstitial lesions, on which so much has been written lately, are due to cocaine itself or to the substances used afterwards, such as corrosive sublimate, boracic acid, salt, etc.; that is to say, after the absorbent power of the cornea had been increased by cocaine. It is still very doubtful whether, when cocaine is used alone, any turbidity of the cornea is produced.

Dr. Boing has treated five cases of angioma in children from two to nine months old by daily brushing the tumors with a four-per-cent solution of sublimate collodion for four consecutive days. The result was in each case very successful, but the question arises whether salicylic-acid solution would not be quite as efficacious and far less dangerous to manipulate.

Dr. Morrell Mackenzie is again in Berlin, and has successfully for the second time removed part of the growth which is troubling the Crown Prince. He returns to England with the Royal party, and will from time to time renew the endeavor to extirpate the tumors. Up to the present Professor Virchow has been unable to detect any signs of a malignant character in the fragments which he has examined. This has greatly improved the Royal patient's mental condition.

Attention has recently been directed to the use of guaiacum as an emmenagogue: it is stated to be most efficient when given alone, especially when the cause of the ailment is obscure. It appears that the best way to administer it is, to give ten grains of the powdered resin, stirred in a wineglassful of milk, every morning before breakfast for some weeks. In rare cases it is found necessary to suspend it for a while. In some cases also of dysmenorrhea the same substance has proved to possess considerable curative efficacy.

A little work on the action of the new Karlsbad spring salt has been published by Dr. W. Iaworski, of Vienna. The therapeutic value of these saline prepartions in the prevention and treatment of fevers has now come very prominently forward.

In relation to a case of macroglossia, the President of the Harveian Society, of London, remarked on the morbid anatomy, and pointed out that the hypertrophy was occasionally due to overgrowth of the lymphatic tissue, or some interference with the lymphatic circulation. In a case under his recent observation, the macroglossia had depended on the presence of mevoid tissue in the substance of the tongue. He considered that the prognosis was invariably unfavorable in such cases. In another case the enlargement of the organ was due to dilatation of the lymphatics, and these could be seen in all stages of development, until in the final stage a cystic lymphangeioma was produced. He also stated that on rare occasions simple muscular hypertrophy existed.

Surgeon-Major Mockton states that a strong decoction of New Zealand flax is unequaled as a dressing for amputations and lacerations in promoting healthy granulation.

London, June, 1887.

Translations.

In the Academy of Sciences (June 13th) M. Fokker described a class of fermentations which are produced by protoplasm of an animal recently slain. Certain fermentations, which, after the teachings of Pasteur, have generally been attributed to microbes, are equally as readily produced by the protoplasm of a normal tissue. A morsel of any tissue whatever, liver and spleen, muscle or blood, taken with all necessary precautions from an animal recently slain, may, in a sterilized medium, convert sugar into acid or starch into glucose without the presence of microbes. The only difference that exists between the action of protoplasm and microbes is, then, a difference of quantity; the difference is due to the capacity of the microbe for multiplication. Fermentation is truly a vital phenomena, as Pasteur believes, but it is necessary to enlarge the idea of life and not limit it to microbes alone.—*Le Progrès Médical.*

Local Treatment of the Bladder.—(Prof. Ultzmann.) Local treatment of the bladder should be brought into requisition only in chronic cases, as the acute diseases of the organ yield in a short time to suitable dietetic and medical attention. Usually there is a chronic catarrh of the bladder, the treatment of which must be directed according to the age of the individual, and according to the etiological factor in the case. If we are concerned with young persons, in whom the catarrh of the bladder is only an extension of gonorrhea from a posterior urethritis, then attention must be paid to the neck of the bladder, as well as to the bladder itself. This is best done with the patient in the horizontal position and the pelvis raised; a small catheter (No. 7 Engl., with a short rubber tube addition) is introduced and the bladder emptied. The remedy employed is gradually syringed, lukewarm, into the bladder, from 200 to 300 gr. being injected with a syringe holding from 100 to 150 gr. When no fluid flows out of the catheter, we have the best proof that its eye is at just the right place. After the syringing the patient stands up and completely empties the bladder, when the whole medicating fluid must again pass over its neck. Soft catheters are not to be used for syringing of this kind, as they are easily displaced by the force of the injection. If the bladder is not sufficient for the task, the rest of the fluid must be removed with the catheter. The upright position is to be preferred for this process in such cases, as emptying of the bladder is then most complete. When the bladder alone is affected, treatment should be confined to it. It should be washed out with a soft, elastic catheter until the fluid flows out quite clear. As the bladder empties itself best in the standing position, either this or the sitting posture should be preferred for cleansing it. When recumbent, the pelvis must be elevated. A syringe is best adapted for the injection, as the force applied can be easily regulated, which is not the case with irrigation. The double-barreled catheter should not be used, as the fluid may easily flow out of the exit-opening without having washed out the bladder. Treatment with the irrigator is advisable in contracted bladder, caused by parenchymatous, gonorrheal cystitis, where, by constant pressure of the fluid on the walls of the bladder, an increase of its capacity is to be expected. The irrigator is not adapted for the removal of sediments from the bladder.—*Memorabilien.**

The Operative Treatment of Buboes.—W. M. Pokrowski opens a bubo as soon as fluctuation is to be felt, under antiseptic precautions, with a broad cut which extends over the tumor then empties the cavity with a sharp spoon, the finger, or scissors, and removes the destroyed gland. If the borders of the cut are but slightly affected, and if a clear wound is obtained, then this is closed with sutures either with or without provision for drainage, or, as is more usual, the cavity is tamponed with an iodoform wad and over that a firm antiseptic bandage applied. The average time of healing was 38 days; suppuration ensued in 55 per cent of the cases, and fever was observed in 70 per cent.

O. Petersen recommends a wide incision whenever fluctuation is perceptible, cleansing by means of a sharp spoon, arrest of the hemorrhage, and sprinkling the cavity with iodoform powder. He lays especial stress, however, on the application of the pressure bandage. A ball of salicylated cotton, corresponding to the height of the bubo, is laid on the surface; over this several layers of the same cotton, then a second wad of oakum about four times as large as the first; finally waxed paper is applied and firm fixation secured by bandaging. The bandage is allowed to remain quite a long time—as a rule, from 7 to 10 days. The average time of healing was 23 days; 20 per cent of the cases were cured with one bandage, 25 per cent with two, and more than seven were never required. On an average two bandages were sufficient.—*Memorabilien.**

Chromhydrosis.—(Dr. R. Hilbert.) On the 3d of March, of this year, Albert B. of Sensburg, a student at the Gymnasium, consulted me on account of an affection of the lungs. Examination revealed incipient pulmonary phthisis. On the left side there was slight dullness at the apex, and here and there *râles* were heard indicative of a cavity of medium size. The patient complained greatly of profuse night-sweats; at the same time he called my attention to an appearance which he had observed upon himself for two days, and which seemed to be an alarming symptom to him; this was a pigmentation involving the upper part of the face. Both on the right and left upper lid six or seven *bright violet* colored spots were found of the size of a hemp seed; their border was not quite round, but irregularly star-shaped, appearing somewhat as if a painter had spattered the paint from his brush. On close investigation, four other spots of similar character were found, but considerably smaller, on the superciliary arch of the left side, and, indeed, just in the location of the hairs of the eyebrow; and finally I noticed another series of spots of the same color, the same contour, and the same size as those just described on the forehead and following exactly the border of the hair. The observant patient had not yet discovered these. I prescribed a suitable diet and pills of atropine and directed him to wash off the pigmentations. He succeeded in this very well with pure water, contrary to the statement of Meyer that colored sweat can only be removed with oil or glycerine. On the following day two other similar pigment spots appeared on the upper lid of the right eye; later, under the continued use of atropine, no further pigmentation was observed, and the night-sweats ceased.

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*Translated by Dr. S. G. Dabney.

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The case just described is remarkable for the peculiar arrangement of the pigment contained in the sweat; in all other cases the coloring matter seems to have been diffused over the affected part of the skin, as no statement is made to the contrary. I can, myself, recall a case of chromhydrosis which I had the opportunity to observe when an assistant at the Ophthalmological Clinic at Erlangen, which has never been farther described, and in which the blue coloring then present was diffuse. The color of the pigment in most of the cases of chromhydrosis described was blue, still here and there other cases than mine are recorded with violet pigment, as these two colors are not always distinguished from one another.

In all cases of chromhydrosis the observer must guard against intentional and unintentional deceptions, such as coloring by articles of dress or bandages, and, above all, simulation is sometimes practiced by hysterical subjects, as cases like mine, where every artificial coloring can be at once excluded, are rare.—*Memorabilien.**

THE CAUSE OF HEADACHE IN SCHOOL CHILDREN.—The cause of headache in school children is in many cases an excessive amount of school-work and its injudicious arrangement, but in many others it is rather an hereditary weakness. Children of this kind are usually the offspring of parents who suffer from migrain, epileptiform, psychotic, and other neuropathic conditions. Migrain may occur in the earliest childhood, and be attended by vomiting, convulsions, somnolency, and thus give rise to a false diagnosis, as, for instance, meningitis. Accordingly we should avoid attributing the cause of headache in the first place and only to attendance at school.—*Dr. Betz, in Memorabilien.**

IN the Society of Biology (June 18th) M. Chouppe reported the result of attempts to establish tolerance in reference to strychnine. For a month he had practiced subcutaneous injections of strychnine in a dog, but whenever he attempted to exceed a dose of two milligrams, convulsions came on, which came near proving fatal. Tolerance at the end of a month was in nowise established. This fact ought to render those physicians circumspect who give strychnine in large doses.—*Ibid.*

COFFEE AN ANAPHRODISIAC.—(Dupuy). In the United States of North America, where strong coffee is largely used, Dupuy observed in his practice a great number of cases in which men otherwise quite healthy complained of impotence, or at least incomplete erection. The patients drank on an average 4 or 5 glasses of strong coffee. When the coffee was discontinued their difficulties disappeared, and with the renewal of its use they returned.—*Memorabilien.**

Abstracts and Selections.

SELTZER WATER AS AN ANODYNE IN CASES OF SUPERFICIAL BURNS is recommended by M. Dubois, of Villers-Bretonneux (*Repert. de Pharm.*; *Lyon Méd.*). It is sufficient to allow the contents of a siphon, previously cooled, to flow over the part. The effect is attributed partly to the refrigeration and partly to the carbonic acid. While the application is not supposed to have any decided curative action, it is thought to hasten the return of the burned part to its normal condition.

Translated by Dr. S. G. Dabney.

*Translated by Dr. S. G. Dabney.

ARTIFICIAL AND HYPER-ALIMENTATION IN PHTHISIS.—In an account of the effects of artificial and hyper-alimentation, as practiced in Prof. Pel's wards in Amsterdam, Dr. Van Eeden states that the meat-powder treatment introduced by Débove (which he had had an opportunity of studying in Paris) is always of service in phthisis when the disease is not very far advanced, and when it is not of a "malignant" nature. The cases which do best under this treatment are those in which there is no hereditary taint and where the disease has progressed regularly, with a not very rapid loss of strength, and with only slight hectic, anorexia, anemia, and emaciation. The chances of successful treatment are slight where the disease has made rapid progress, with a continuous high temperature. The existence of a considerable degree of pyrexia is, however, no contra-indication to the use of the treatment. If diarrhea and gastric irritation are produced by the artificial alimentation, it is best to discontinue it. In order to accustom the stomach to the meat powder, small quantities only should be given at first—not more than about half a pound during the twenty-four hours; this amount may gradually be increased to one pound and a half. The use of the esophageal sound for the introduction of the food is considered by Dr. Van Eeden as advisable in all cases, and imperatively necessary in hyper-alimentation. Quantities exceeding three pounds of meat powder per diem, however, are not by any means always required, and should only be given when smaller amounts do not succeed, and where the patient bears the treatment well. The method must be diligently and patiently practiced, and the weight of the patient accurately noted. Dr. Van Eeden remarks that so little is known of the way in which hyper-alimentation controls the development of tubercle, that whoever attempts to practice Débove's treatment must be prepared to meet with many difficulties and disappointments. Notwithstanding this, however, he has witnessed some surprisingly good results from its employment.—*London Lancet.*

THE JUGULAR HUM.—The unreliability of the well-known "*bruit de diable*," or jugular hum, as a sign of anemia, which was pointed out by Weil, whose objections have been disputed by Guttmann, has been again proved by Dr. Reinhold Apetz (Virchow's *Archiv*, Bd. 107, Hft. 3) upon the results of the auscultation of 660 individuals, of whom 115 were anemic, 161 "barely" anemic, and 384 "not anemic." The murmur was detected in the proportion of 51 per cent of the first-class, 46 per cent of the second, and 39 per cent of the third. Without following the writer through his analysis, which corresponds fairly closely with the similar observations of Weil, it may be interesting to cite the conclusions at which he arrives. These are to the effect: (1) That venous murmurs detected in the internal jugular vein under all circumstances depend in the first place upon the age of the affected individual, the murmurs becoming less frequent with advancing age. (2) That venous murmurs detected by turning the head to the other side are of no value in the diagnosis of anemia, but have only a physiological importance. (3) That some pathological importance specially belongs to the true murmurs detectable when the head is kept straight in the upright position, when they occur loud and continuous in individuals at middle age (twenty to sixty years); yet they are generally too insignificant to be of value in the diagnosis of anemia. (4) Under no conditions does the venous murmur have any special diagnostic value for chlorosis and other anemic states.—*London Lancet.*

THE OPERATIVE TREATMENT OF BASEDOW'S DISEASE.—Bobone (*Ann. d'Oculist*) calls attention to the case, reported by Dr. Hack, of Freiburg, of a young girl who had bilateral exophthalmic goître, with hypertrophy of the mucous membrane of the middle and inferior turbinated bones. Cauterization of the right nasal cavity caused a disappearance of the exophthalmia of the right side, and the same occurred on the left side, when the left nasal cavity was cauterized. After repeated cauterizations there was a progressive disappearance of the cardiac phenomena, with a diminution in the volume of the thyrloid body. Bobone reports a very similar case occurring at the clinic of Dr. Chiari, in Vienna. In explaining these cases, he believes that the chronic affection of the nasal cavities kept up a permanent irritation of the ends of the sympathetic nerve in the nasal mucous membrane. Hence, in all cases of exophthalmic goître the nose should be carefully examined.—*New York Medical Journal.*

TO AVOID RUPTURE OF THE PERINEUM DURING LABOR.—Dr. Berry Hart (Edinburgh Medical Journal) says: "All the attendant can do, apart from the familiar means of relaxing perineal spasm by chloroform and hot applications, is to prevent the sinciput being forced down in advance of or faster than the occiput. He restrains the fetal head from passing too rapidly. He thus has always to get the occiput to lead, and to get it fully born first if possible. So far as I can judge, the best way of doing this is as follows: With the patient lying, of course, on her left side, the attendant places the thumb of his right hand, guarded by a napkin soaked in hot sublimate, in front of the anus and presses it gently there. The pressure is not in the direction of a line joining his thumb and the pubic arch, but nearly in that of the axis of the pelvic outlet. By this, descent of the sinciput is hindered, and that of the occiput favored. When the latter is beginning to pass under the pubic arch, the fingers of the same hand are placed between it and the apex of the arch, so that when the occiput has cleared the arch the fingers are passed toward the nape of the neck, and the head thus grasped in the hand, the thumb lying over the sagittal suture. This gives one complete command over the head, which is now engaging in the diameters between the nape of the neck and forehead and face, and allows the whole passage with as little tear as possible."

Dr. Pécholier's Treatment of Typhoid Fever.—Dr. Pécholier recently communicated to the Académie de Médecine the results of his treatment of typhoid fever with quinine and lukewarm baths. He used this method with success in sixty-five cases. According to Dr. Pécholier, the treatment is not only curative, but abortive; it shortens the duration of the illness. M. Dujardin-Beaumetz, having been commissioned by the Académie to report upon the method, said it erred in being too systematic. Typhoid fever should be treated in different ways, according to the great variety of complications that may occur in the course of the disease. Cold baths, calomel and large doses of carbolic acid had been prescribed as certain remedies; but all these were attended with certain risks. M. Pécholier's treatment was employed at the first appearance of febrile symptoms It could not, therefore, be considered certain that the sixty-five cases said to have been cured were cases of genuine typhoid fever.—*British Medical Journal.*

Child-birth after Ovariotomy.—Sir Spencer Wells, in his work on Abdominal Tumors, has referred to many of his patients who have borne children after ovariotomy—some twins and one triplet; but I doubt if he or any other surgeon has a record of any patient who, after removal of one ovary, has borne seven children. I therefore think it of some interest to make known that I have just attended with her seventh child—five girls and two boys—a woman upon whom Sir Spencer Wells performed ovariotomy in the Samaritan Hospital on October 6, 1875, who had borne five children before the operation. I had tapped this patient in June, 1874. She became pregnant after the tapping, and was confined in July, 1875, with a fine, full-formed child, the ovarian tumor being then almost as large as the gravid uterus, though it did not interfere with the natural course of the labor. It increased rapidly after the birth of the child. I was present at the operation on October 6, 1875, and attended her in another confinement on October 5, 1876—one day short of the year.—*Thomas Macaulay, in British Medical Journal.*

Action of Calomel on Bile.—An account of a number of observations made in the laboratory of Professor Tumas in Warsaw, and published in the *Vrach*, points to the antiseptic action of calomel on bile. It was found that when fresh bile was mixed with calomel and kept at the temperature of 12° R. (59° F.) for several days, its smell and its color changed but little, whereas another portion of the same specimen, unmixed with calomel, kept under similar conditions, rapidly became putrid and turned to a reddish color. Again, a smaller admixture of calomel produced a partial effect only. This antiseptic effect appears to be due to the conversion of calomel in an alkaline medium into suboxide of mercury, which converts bilirubine into biliverdine—thus, $C_{16}H_{18}N_2O_3+2Hg_2O=C_{16}H_{18}N_2O_4+HgO+3Hg$, mercuric oxide and metallic mercury being also formed. If an experiment is made on alkaline bile by mixing it with calomel, a distinct deposit of metallic mercury is easily obtained.—*London Lancet.*

Dry Hot-air Baths for Syphilitic Patients.—Dr. Stepanoff, of Moscow, has contrived a plan of treating patients suffering from syphilis which has resisted mercurial and iodine treatment. He has had a box or bath constructed, with an iron bottom lined with thick felt, in which the patient is placed. The bath is heated to about 170° to 190° F. by means of two Bunsen's lamps, each consisting of five burners. After the patient has been "baked," he is put to bed and covered with blankets, so as to prolong the sweating process commenced in the bath for an extra half-hour. After this he is allowed to dress and go into the ward to his dinner. By means of these baths the mercury is rapidly eliminated from his system, and the patient's condition greatly improves and, after a course, mercury is found to act quickly and energetically.—*London Lancet.*

Microbes and Suppuration.—A. Zuckermann relates his experiments upon suppuration, which have led him to these conclusions:

That no chemical, mechanical, or thermic influences can excite suppuration if they are wholly free from microbes, and in cases where these causes apparently act it is probably through some pyogenic microbe; for substances chemically pure may be mycotically impure; thus some disinfectants are not always free from microbes. The varieties of microbe known to cause suppuration are staphylococcus pyogencs nureus, albus, and citreus; streptococcus pyogenes; and in fetid abscesses, bacillus pyogenes estidus. Inoculations with staphylococcus and lareptococcus produce fatal results if injected in large amounts into animals, or lead to suppuration if death do not occur. The pyogenic microbes must have a very general distribution of nature; they may enter the body through the air-passages, the intestinal canal, and especially the skin, and by means of small wounds to the orifices of the cutaneous glands. Staphyricoccus is more frequent than the streptococcus pyogenes.—*London Lancet.*

Effects of Hot-air Baths on Assimilation.—In a paper by Dr. Garin, of St. Petersburg, on the effects of hot-air baths on healthy subjects, and on those suffering from kidney disease, it is stated, as the result of his researches, that the sudorific action of hot air produces an increase in the quantity of the nitrogenous elements of food assimilated. In healthy subjects it was found that after a course of hot-air baths lasting for five days the nitrogen assimilated was greater than before the baths, though less than during their continuance. This, however, did not appear to be always the case with patients suffering from nephritis. Again, the ratio of the urinary nitrogen to the nitrogen assimilated—that is to say, the nitrogenous metabolism—was decidedly increased both during and after the baths, the subsequent effect being more marked in the case of nephritic patients than in that of persons in good health, though not in either case so great as the effect observed while the baths were in progress.—*London Lancet.*

Photoxylin.—Photoxylin, a substance used by photographers in lieu of collodion, has been recommended as a substitute for the latter in minor surgery. A five-per-cent solution in equal parts of alcohol and ether is said to adhere more firmly to the skin, and is therefore less likely to be rubbed off in washing. It is quite impervious to liquids, and exercises a compression on drying like collodion. It is highly antiseptic and adequately replaces the more voluminous antiseptic dressings. The substance would not appear to be known in this country, and we are not aware of its composition. Some one or other of the enterprising firms of chemists will doubtless acclimatize the product shortly, and we shall then be enabled to judge for ourselves.—*London Medical Press.*

Synchysis Scintillans.—Dr. Königstein demonstrated, at the June meeting of the Imperial Society (Vienna), some specimens of a very interesting case of "synchysis scintillans." The affection consisted in a liquidation of the vitreous body, in which thousands of crystal were contained. Dr. Königstein was of the opinion that these crystals were identical to those found by Panas in cases of cataracts produced by naphthalin, and which consisted of the oxalate and phosphate of lime. The respective patient had seen well with the affected eye, which could be stated with much more certainty, as he suffered from amaurosis of the other. The disease was very rare, and only one *post-mortem* examination of such a case had had been hitherto known.—*Ibid.*

Massage in Catarrh of the Bile-duct.—Dr. Gopadze publishes, in the Proceedings of the Caucasian Medical Society, an account of fourteen cases of catarrh of the bile-duct, in which massage proved of great service. The symptoms were loss of weight, malnutrition, eructations, tympanites, diarrhea or constipation, admixture of blood with the stools, loss of appetite, etc. In a week's time from the commencement of systematic massage a marked improvement invariably took place.—*London Lancet.*

Infantile Diarrhea.—Hayem (*La France Médicale*) has found that the green color of the discharges from the bowels of infants suffering with entero-colitis is caused by a microbe which secretes this green coloring-material. The disease is epidemic and contagious. The best manner of treating it is to give to the child a dessertspoonful of a two-per-cent solution of lactic acid after each time of nursing.—*Medical Times.*

Hemorrhagic Parametritis.—Dr. Matthews Duncan (Obstetrical Society of London) related three cases of severe bleeding in patients with parametritic abscess. In the first case the bleeding occurred on opening the abscess, and was easily restrained; the woman recovered. The bleeding was probably only a profuse oozing. The second case he did not see; the bleeding was rapidly fatal and flowed through the bladder, the abscess having spontaneously opened into that viscus. In the third case, also fatal, the bleeding occurred in repeated flows through the bladder, along with pus and sloughs. The bleeding arose from gangrene laying largely upon the external and internal iliac veins at their junction. This case he regards as one, not of ordinary parametric abscess, but of progressive gangrene of cellular tissue.—*London Lancet.*

HAMAMELIS VIRGINICA.—Dr. J. V. Shoemaker (Peoria Medical Monthly) says: The published reports of cases in which hamamelis has been administered vary considerably. Some observers claim that it is a potent therapeutic agent, while others assert that it is of little or no value. This wide discrepancy is due in part to differences in the strength and dosage of the preparation employed, and in part to its employment in inappropriate cases. The preparation from which the most certain results can be obtained is the fluid extract, prepared, as directed in the United States Pharmacopœia, by exhausting 100 grams of the bark in a sufficient quantity of alcohol and water to make 100 cubic centimetres. The doses of the fluid extract should not be less than twenty minims, and may be increased to two teaspoonfuls, or more if necessary, without producing any untoward symptoms. That its action is depending upon the alcohol in it, I can, from my clinical experience, most decidedly deny, from testing cases at the same time with diluted alcohol and the fluid extract of hamamelis. The styptic properties, and other valuable therapeutic actions claimed for hamamelis, were not observed upon giving diluted alcohol in these cases, but were marked and decided upon the employment of the fluid extract of the bark. I regard hamamelis as a powerful astringent and hemostatic; it is also slightly sedative and tonic, stimulating the appetite and improving digestion. It is a remedy *par excellence* in all forms of gastric hemorrhage, and in disease due to a relaxed condition of the venous and capillary walls. It is serviceable in various forms of active hemorrhage as an adjuvant to any of the cardiac sedatives. It will be found promptly curative in cases of hemoptysis in which the attacks are prolonged and the hemorrhages are small in quantity, indicative of a continuous oozing rather than of an arterial or capillary rupture. In cases characterized by sudden and copious hemorrhage, attended by a full and frequent pulse, hamamelis will only be effective when combined with full doses of aconite, veratrum viride, or other cardiac depressants. It will not, however, be of any avail in restraining the bleeding due to polypi or other abnormal growths. It is most effective in anemic patients, and in subjects of the lymphatic diathesis, in whom the sanguinolent flow is probably due to relaxation of the muscular coat of the uterine vessels. It is also potent in checking the bleeding which in some women continues, without any assignable cause, for several weeks after parturition. Hamamelis is one of the most efficient remedies that I have ever employed in the treatment of epistaxis. As is well known, cases of this affection sometimes persist for several days, even after the administration of ergot, digitalis, matico, iron, and sulphuric acid, and the local application of various astringents. If hamamelis be resorted to, however, I am confident that the bleeding will be either promptly checked or reduced to such an insignificant amount as to remove all apprehension.

It is necessary, however, in order to secure the desired result, to consider the pulse and general condition of the patient. If the pulse is rapid and bounding, and the nervous system in a state of excitement, hamamelis alone will not restrain the flow. It must be combined with veratrum viride or aconite and morphine. In such cases I usually order Tinct. veratri viridi, 15 min.; morphinæ sulphatis, 1 gr.; ext. hamamelis, fl. 1 oz. M. *Signetur*, one teaspoonful every hour.

If the pulse, however, is normal, and the patient free from alarm, the administration of one dram of the fluid extract of hamamelis every hour for three or four hours will usually be found sufficient. In chronic cases, where the bleeding is minute but persistent, the continuous application of a solution composed of two ounces of the fluid extract of hamamelis to one pint of water will usually act like a charm. In all cases, however, ice-water should be freely applied to the top of the head and nape of the neck during the concontinuance of the bleeding. Hamamelis has yielded the most gratifying results in my hands in the treatment of two cases of hemophilia; I have also employed it with marked benefit in a case of hemitidrosis, in which iron, quinine, nitric acid, and turpentine had failed. I have not had any experience in its employment in hematemesis or hematuria, but, reasoning from analogy, I believe it will be found serviceable in these affections when the bleeding is of a passive character. Hamamelis is especially valuable in cases of hemorrhage from the bowels, especially from those of a chronic character occurring in persons of sedentary habits. I have employed it with success in three such cases after the usual remedies had been administered in vain.

Hamamelis is an effective remedy in purpura. I have notes of two cases of this disease in which relapses occurred during the administration of arsenic, quinine, ergot, and oleum terebinthinæ, but which rapidly and permanently recovered when placed upon half-teaspoonful doses, every four hours, of the fluid extract of hamamelis. The therapeutic powers of hamamelis are displayed to striking advantage in the treatment of varicose veins and varicose ulcers. My treatment of varicose veins consists in the application of a firm cotton bandage, and the administration of one dram of fluid extract of hamamelis four times a day. For varicose ulcers I direct the ulcerated surface to be touched twice daily with a lotion composed of two drops of nitric acid and four ounces of water. The affected limb is then firmly bandaged, and the patient is directed to take one dram of fluid extract of hamamelis four times a day. Of seventeen cases treated in this way during the last three years, I lost sight of three, eleven were discharged cured in from three weeks to four months, the remaining three were found to be suffering from tertiary syphilis, and did not show any improvement until placed upon a mercurial course in addition, when they rapidly recovered.

Three cases of varicocele in which I exhibited hamamelis improved remarkably, so that all idea of performing an operation for permanent relief was discarded as unnecessary.

Hamamelis will be found very effective in the treatment of painful and bleeding hemorrhoids. In this class of cases it should be given internally in decided doses, and applied locally in the form of a twenty per cent ointment or lotion. Laxatives should be administered in addition, in order to keep the bowels freely open until a cure is effected.

Hamamelis is a valuable remedy in the treatment of subacute and chronic diarrhea. It appears to be especially indicated in cases characterized by frequent painless watery or mucous discharges. Its value is enhanced by the addition of a small quantity of opium and nux vomica, as in the following formula: Tinct. opii. deod., 20 min.; tinct. nucis vomicæ, $\frac{1}{2}$ dr. ext.; hamamelis, fl. 1 oz. M. *Signetur*, half a teaspoonful in water every three hours.

Hamamelis is an efficient remedy in the treatment of leucorrhea and chronic gonorrhea, if administered internally in doses of from twenty to thirty minims three times daily, and also employed as an injection diluted in the proportion of one part of the fluid extract to twenty parts of water. When diluted in this proportion, as used in the form of the tincture, it will also be found valuable as an external application in hyperidrosis, acne rosacea, seborrhea, intertrigo, eczema, and some forms of pruritus. The same solution will also be found serviceable as a mouth-wash in mercurial stomatitis, scurvy, and softening of the gums from various causes. It may also be employed with advantage as a local application in naso-pharyngeal catarrh, and as a gargle in chronic pharyngitis, and in all relaxed conditions of the pharyngeal and laryngeal walls. As an application to incised and lacerated wounds I know of nothing better than the following lotion: Tinct. opii. deod., $\frac{1}{2}$ dr.; ext. hamamelis, $\frac{1}{2}$ fl. oz.; aquæ, $3\frac{1}{2}$ ozs.

RESECTION OF THE PYLORUS.—At the last meeting of the Imperial Society (Vienna), Dr. Salzer, assistant to Professor Billroth, showed a specimen obtained from a resection of the pylorus. The patient, a woman, aged fifty-five, was admitted into the clinic of Professor Billroth on account of acute pains in the stomach. She had suffered for three years from dyspepsia, sour, acid eructations, and pains in the region of the stomach. Her condition became worse after one and a half years, when vomiting occurred each time after solid food had been taken. At the time of admission into the clinic the patient was much emaciated; the peristaltic movements of the intestines could be distinctly seen through the abdominal walls, and an enormous dilatation of the stomach was present. By palpation, the presence of a tumor which in its situation corresponded to the pylorus was detected. As Professor Billroth could not immediately determine on operating, he at first had recourse to artificial feeding, which was attended with success. In the case under consideration, it was sufficient to wash the stomach, and the patient was thus able to take food for two days without any disturbances on the part of the stomach. On the third day, when washing was not repeated, vomiting regularly occurred. On the 26th March the resection of the pylorus was performed in the usual way. The only complication was a coalescence of the tumor to the head of the pancreas to such an extent that it could not be removed without injuring the pancreas. A parenchymatous hemorrhage occurred, which was stopped by numerous sutures. A suture of the pancreas was, moreover, applied, to the effect that the pancreatic juice should not discharge into the abdominal cavity. The intestinal clamps, as recommended by Rydigier, proved very efficient during operation. When the abdominal suture was applied, the hydropic gall-bladder, which contained a biliary calculus of the size of a walnut, protruded into the abdominal wound. As the patient was very weak, no operation on the gall-bladder was undertaken. At present one felt at the inferior angle of the abdominal wound a tumor, which was not the result of a relapse of the affection, but represented the gall-bladder with its concrements in it adhering to the abdominal walls. Relapse of the affection was to be excluded so much the more as, owing to the examination of the excised pylorus, it was evident that one had not to deal with a carcinoma at all, but with a callous mass which had formed around an "ulcus pylori." Patient recovered quickly after operation; vomiting did not recur; the weight of her body had increased already, fourteen days ago, seven and a half kilogrammes. *London Medical Press.*

Case of Supposed Quinine Amaurosis.—Browne (Ophth. Rev.) reports a case of this kind in a man, aged thirty-four, who had had syphilis two years before, but he had been carefully treated and was perfectly temperate and in good health. While in China, in January, 1886, he had a severe rigor, followed by pneumonia. He was said to have taken quinine in doses of thirty grains every two hours, and thought he had taken one hundred and twenty grains, when he suddenly became very deaf, a "flickering" came before his eyes, and then he suddenly became completely blind. His pupils became at this time widely dilated. At the end of six weeks he began to perceive bright sunlight, and central vision rapidly returned. Three months and a half after his loss of sight, vision in the right eye was $\frac{20}{20}$ and in the left eye $\frac{20}{80}$. Central color vision was perfect, but the field for white was very contracted. The optic discs were very pale, and the vessels extremely small and contracted. The hearing was perfect.—*New York Medical Journal.*

Mercurial Injections.—A discussion has recently been taking place in the Brussels Medical and Scientific Society as to the relative advantages of mercurial injections and inunctions combined with internal medication. Dr. Thiry prefers the latter method, as he thinks injections are attended with serious risks and inconveniences. M. Ed. de Smeth, on the other hand, practices injections largely—in fact, always—when mercury is indicated in syphilitic patients. At present there are in his wards twenty-four such cases, in which no less than nine hundred injections have been given without any accident occurring; and M. de Smeth thinks that—as, apart from his own practice, M. Martineau has reported a series of 180,000 injections without any accident, Lewin 300,000 with twenty abscesses, and Paikert 5,000 without any—it can not be said that this form of treatment is more liable to inconveniences than other forms. He points out that there is a great difference between injecting insoluble salts, as calomel and the yellow oxide, in the way recommended by Scarienzo, upon which method M. Thiry's experience of injections was mainly gained, and injecting soluble salts, which is the plan he himself prefers and follows. Here, he says, the only objection to the injections is that the patient must be regularly seen by the doctor, which, in private practice, is some times inconvenient. Of course, care must be taken that the syringe is perfectly clean and that the liquid is well filtered. In order to illustrate the occasional importance of the rapid action, which can only be obtained by the method of injecting soluble salts of mercury, M. de Smeth mentions a case of syphilitic laryngitis of so urgent a character that it was thought that laryngotomy would be needed. However, by means of hypodermic injections, repeated five or six times during the course of twenty-four hours, all danger was averted.—*London Lancet.*

Catheterization of the Bronchial Tubes.—In the case of a patient who had every symptom of a bronchial stenosis, it was impossible to say whether the constriction was owing to some external obstruction pressing down upon it, or to some new formation in the wall of the bronchus itself. In order to get at the seat of the trouble, Professor Landgraf made use of an ordinary English catheter, which he inserted through the glottis into the trachea, after having painted the parts with a 10-per-cent. solution of cocaine in order to anesthetize them. He succeeded in introducing the catheter 28.5 cm., counting from the incisor teeth, without meeting with any obstruction. This was the exact point of bifurcation of the bronchi, as, after the death of the patient, the parts were measured, and found to correspond exactly. As the constriction was known to be on the left side, a number of subsequent attempts were made without causing the patient any inconvenience whatsoever, until at last they succeeded in introducing the catheter 32 cm. where the constriction could be felt. After the patient's death an aneurism of the descending aorta was found to press upon the left bronchial tube. In this case the catheterization could only have acted palliatively, but in other cases of stenosis, such as is due to syphilitic processes, one could not only afford relief, but locally treat the patient. Moreover, the operation, with the aid of cocaine, is a comparatively simple one —*Weekly Medical Review.*

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. IV. SATURDAY, JULY 23, 1887. No. 2.

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A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

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PASTEUR AND THE PARLIAMENTARY COMMISSION.

The committee nominated by the President of the Local Government Board of London in April, 1886, in accordance with a resolution of Parliament, recently made its report to the latter body. The report is signed by James Paget, T. Lauder Brunton, George Fleming, Joseph Lister, Richard Quain, Henry E. Roscoe, J. Burdon Sanderson, and Victor Horsely, Secretary. Mr. Horsely and a number of the members of the committee visited Paris for the purpose of obtaining information from M. Pasteur himself, to observe his method of treatment, and investigate a considerable number of cases of persons inoculated by him. A careful series of experiments was also made by Mr. Horsely on the effects of such inoculations in lower animals.

Mr. Horsely's experiments are stated to entirely confirm M. Pasteur's discovery of a method by which animals may be protected from the infection of rabies. In these experiments it was satisfactorily proven that a substance may be obtained from the spinal cord of an animal dead of hydrophobia, which, if inoculated into another animal, will produce hydrophobia, in no respect differing from the form of disease which would have followed from the bite of a rabid animal, except that the period of incubation is altered. The rabies thus transmitted by inoculation may by similar inoculations be transmitted through a succession of rabbits with marked increase of intensity. But the virus in the spinal cord of rabbits that have died of inoculated rabies may be gradually attenuated by drying the cords, so that after a certain number of days drying it may be injected into healthy rabbits or other animals without any danger of producing rabies; and by using on each successive day the virus dried during a period shorter than that used on the previous day, an animal may be made almost certainly secure against rabies, whether from a bite or from any method of subcutaneous inoculation. This protection is proved by the fact that, if animals so inoculated and others not be bitten by the same rabid animal, none of the first set will die of rabies, while, with rare exceptions, those of the second set will succumb.

The committee therefore hold that it may be deemed certain that M. Pasteur has discovered a method of protection from rabies comparable with that which vaccination affords against smallpox. They think it certain that the inoculations practiced by M. Pasteur have prevented the occurrence of hydrophobia in a large proportion of those who, if they had not been so inoculated, would have died of that disease.

They are not sure that the intensive method of inoculation is free from danger, but rather incline to think that deaths may have been due to it; for, as has been previously pointed out, a form of rabies, the paralytic, not met with in the rabies of the street, has supervened on inoculation by the intensive method. M. Pasteur has, however, greatly modified this plan of treatment, and employs it only in the most urgent cases.

Probably since the first inoculations were undertaken by Pasteur no such weighty testimony has been given to the effectiveness of his method as that contained in the report of this committee, composed as it is of men who, in all the qualifications that befit the judge, are second to none in any country.

As far as the report applies to animals it seems conclusive, and both directly and inferentially the testimony is very strong as regards human beings. There remains, however, the objection, urged some time since by Peter and Colin, that the census returns show about as many deaths in France from hydrophobia since the beginning of the practice of inoculation as before, notwithstanding the large number of cures claimed by Pasteur.

Once stripped of every difficulty, and thoroughly established, it would be impossible to overestimate the importance of the discovery, both as regards its practical utility and its importance in general pathology. It shows the possibility of an unlimited application of a method, the like of which it may become possible to employ for the protection of both men and animals against others of the most intense kinds of virus. In the not very distant future, in some form of inoculation, an effective preventive may be discovered for every kind of infectious disease, so that vast regions of the earth, now dominated by constant apprehensions of invasion by scourges, will offer opportunities of life as little troubled by them as civilized lands are now by apprehensions of smallpox.

Among all who may have contributed to the completed task, if completed it shall be, no man is likely to have a greater share of honor than the illustrious savant whose name is in the mouths of men as that of no other scientific man after Darwin has ever been

The Chinese had practiced inoculation against smallpox for centuries, and first gave the idea to the modern world. Jenner found the milkmaids, in a dim sort of way, possessed of a knowledge of the protective power of vaccination, and taking it from them carried it into general recognition, in spite of most extensive prejudice. But Pasteur, with the advantage, it is true, of a knowledge of these facts before him, has taken up a process full of peril, in the face of powerful and bitter opposition from men of ability and honesty, and, if we are to agree with the eminent gentlemen who have just made their report, after years of patient struggle has carried it to triumphant success.

SEPARATION OF THE PLACENTA.

Dr. Berry Hart is of the opinion that the true method of separation of the placenta has not hitherto been discovered, and proposes an explanation different from any yet offered. He says that it has been proven by Balfour that diminution of the placental site by contraction of the uterus does not cause the separation of the placenta. It can not be due exclusively to the formation of blood clot behind the placenta, for often the placenta comes away without any blood at all. He finds, however, whenever the placental site is caused to expand the placenta at once becomes detached. Thus in placenta previa, which he defines to be the attachment of the placenta or any part of it to the lower uterine segment, as soon as this lower uterine segment begins to expand the attached placenta begins to separate with consequent bleeding.

Dr. Hart infers from this that the uterus follows the expulsion of the child with the extreme contraction, then immediately begins to expand, and along with it the placental site, which in brief time results in the detachment of the placenta.

DR. GULL AND MEDICATION.

Not a little stir seems to have been raised in British medical circles by some disparaging remarks recently made by Sir William Gull in regard to the small utility of medicines in sickness. The eminent physician emphasized his opinion by stating that his Royal Highness the Prince of Wales took but a single dose of medicine during his notable attack of typhoid fever a number of years ago.

While we might not by any means agree with Dr. Gull in his views as to the utility of medicines, we do not see any reason for losing temper at his expression of them, especially as we are not certain that a little extreme in high places in one direction is not needed to balance the great extreme in another. We incline to think, however, that Dr. Gull, with many of the rest of us, is disposed to disparage medicine and medical skill in the very cases where they are the most useful.

When a thing ceases to appear difficult we are disposed to undervalue it; so, in the treatment of diseases like those produced by malaria, for instance, the very simplicity of the method to be pursued causes in us a disposition to place a low estimate upon it. We are prone to value procedures according to the difficulty of carrying them out.

There are instances enough in the experience of every physician where medicines are given without warrant and without result, to tempt us at times to expressions of disgust with their promiscuous use. On the other hand, there are vast numbers of diseases that we know yield readily to well-understood methods of treatment. Perhaps the truest expression of a doctor's real convictions in matters of this kind would be the course he himself would like to have pursued in case he were the patient. Dr. Gull might be willing enough to forego medicines in typhoid fever, pneumonia, smallpox, diphtheria, and other like affections, but in diarrhea, dysentery, various skin diseases, and in all diseases accompanied with pain, he would doubtless prove a submissive patient.

Notes and Queries.

Editors American Practitioner and News:

SECONDARY SYPHILITIC CONTAGION.—In the AMERICAN PRACTITIONER AND NEWS for June 25th appears a paper, read by Dr. E. R. Palmer, before the Kentucky State Medical Society, in which he discusses and criticises an investigation made by me and published in the New York Medical Record of December 18, 1886.

As far as I am aware, there are no other statistics on this subject embracing any great number of years or extent of experience, and until those collected from army and navy surgeons can be met by others equally extensive and trustworthy, there is no apparent reason why they should not hold good.

It is not claimed that these results are in any sense final; indeed, the principal motive for making the investigation was to induce others, who had the opportunities for such work, to collect data for further and more exact comparison and study than seems yet to have been given to this important subject.

The vague allusions to "The positive and oftentimes terribly sad infections . . . from the contact of lips and tongue bearing secondary mucous patches with the untainted mouths of innocence and virtue, and that too in the higher walks of civil life" (I quote from Dr. Palmer's paper), have a very familiar sound. It was the lack of agreement between my own experience and such often-repeated lurid declamation that led to the collective investigation of the subject, the results of which are contained in my original paper, and which Dr. Palmer meets simply by reiterating them.

The observation of the medical officers who answered the queries addressed to them on the point under discussion, embrace an aggregate period of 3,402 years, or, to put it in another form, 33,000 men were observed for ten years.

From information obtained from army and navy medical reports, for the last ten years, it is estimated that syphilis exists among our soldiers and sailors in the proportion of one case to every 7.66 individuals, so that it would appear that there is plenty of material for observation among them.

The original paper gives what seem to the writer good reasons for claiming that the observations of army and navy medical officers, instead of being inaccurate, as Dr. Palmer suggests, are unusually careful and correct. The necessity of making thorough search for and a full record of the origin of every case, however trivial, that falls into their hands, for probable future use by the pension office and boards of retirement, insures an accuracy on this point that can not, or, at least in the experience of the writer does not obtain in civil life.

There are other reasons given why military surgeons should be in a position of advantage in making such observations and conclusions, for which the reader is referred to the Medical Record of the before-mentioned date.

In addition to the assumed inaccuracy of the observations on which the statistics are based, which Dr. Palmer suggests as a reason why they should not be trusted, he draws an imaginative picture of the soldier perpetually at drill, and the sailor always in the rigging; but soldiers do not spend all their lives embracing "burnished muskets," nor is there a "slippery mast" for each sailor on board ship, about which he may kee phimself entwined, safe from the dangerous (?) contact of his syphilized comrades.

The original paper contains the following: "If syphilization from the consecutive lesion were common in any walk of life, we should naturally expect it to be exceptionally frequent in the army and navy. In these services large numbers of unmarried, or practically unmarried, men are massed together for long periods, and from necessity must come into frequent and close contact with each other, and, in spite of all possible care, must use many things in common, without proper cleansing, that could easily be the vehicles of the syphilitic virus, if it were so active and readily absorbed as the majority of our writers would lead us to believe. Any one who has seen an entire ship's crew, syphilitics and all, on a hot day in the tropics, crowding around the scuttle-but, drinking freely and frequently out of the same cup, and failing to find the theoretically-to-be-expected crop of labial chancres following in due time, would, I think, have his faith in the assertions of many standard syphilographers shaken."

All of the above paragraph Dr. Palmer appears to have left unread, or at least unnoticed.

Of the forty-one reported cases of infection from consecutive lesions in the services, twenty-nine are excluded as being cases of inoculation pure and simple, from tattooing, biting, and vaccination.

Of the remaining cases, four sources of possible error are suggested. Dr. Palmer mentions only one "direct contact of the lips with a vulvar chancre." The other three are, the existence of a primary sore on the lips of the infecting individual, the conveyance of matter from a primary sore on the genitals, *e. g.* by the finger to the lips, and lastly, the existence of a fresh open wound in the mouth of the infected individual.

Unless it is maintained that infection from secondary lesions can only occur between persons of opposite sex, the objection that soldiers and sailors are isolated from women for a large part of their lives loses its force.

There is no doubt that, if the experience of the surgeons of the army and navy leads to an erroneous conclusion that begets a false confidence in the mind of any physician, incalculable harm may result from it; but we are all, I take it, in search of the truth, and if those who do not agree with the conclusions of the writer will bring forward a sufficient number of well-authenticated cases on the other side, they (the conclusions) must and should fall to the ground; but simple assertions unsupported by evidence, however emphatic they may be, should have little weight in the determination of facts.

GEORGE ARTHUR,
P. A. Surgeon U. S. Navy.

STUNNING AND BURNING FROM ELECTRIC WIRES.—The human body is, fortunately, a poor conductor of electricity; and it has been said by certain electricians that a wire (in circuit) transmitting enough electricity to light fifteen lamps may be handled with impunity, if the circuit is not broken. Occasionally, however, a "lamp-trimmer" brushes against a wire with a wet rubber coat, or touches it with damp hands, thus breaking the circuit, and receiving a severe shock and burn. Three cases of this character occurred in Boston last autumn, where men received an electric shock in the above manner. They were rendered unconscious, fell to the ground, and sustained, in addition to the bruising from the fall, a severe shock and local burns. The burns were peculiar in that the tissues were completely destroyed, the surrounding parts anesthetized, and that, at first, there was no local congestion of the surrounding skin: the reparative process was very slow and tedious. The period of unconsciousness varied with the severity of the shock, which, in two of the cases, was recovered from in a few days. Prof. George Buchanan reports the case of a laborer who was stunned and burned while working in the vicinity of a Brush light. The victim was engaged in handling a crane. By the wire of the light coming in contact with a chain attached to the crane, he was brought into the circuit. He was instantly "doubled up," his hands spasmodically grasped the chain, and in this position he was held for four minutes, until the lamp and chain were disconnected. The amount of shock was slight, but a full hour elapsed before consciousness returned; he then complained of a sensation of heat in the abdomen, and slight dimness of vision. There was a slight vesication on the hands, and at the point on the sole of the foot from which the current passed into the ground a charred surface, two inches square, remained. It is certainly remarkable that so powerful a current could pass through the foot without causing more injury in its passage. The treatment of these cases is essentially that adopted for severe nervous shocks, the burns being treated as their intensity may demand.—*Boston Medical and Surgical Journal.*

Ear Cough.—I have lately met with a very striking instance of cough originating in disturbance of the auditory meatus, which appears to me to be worthy of record. J. G., married, age forty-nine, an insurance agent, caught a severe cold four years ago, accompanied by a troublesome hacking cough. The cough gradually became more severe, the patient at the same time growing so deaf that he could not hear when the voice was raised to a shout.

For thirteen weeks before I saw him, more serious symptoms had manifested themselves; he wasted, had night-sweats, was delirious at times, and could get no rest at night. Among other opinions of his case was one that he was suffering from consumption and could not live forty-eight hours. On the following day I visited the patient. I found mucous *râles* over both lungs, and *cerumen in both ears.* The cerumen was removed next day, and the same night the patient slept for three hours. Gradually all his lung symptoms vanished, and in fourteen days he visited his friends in the country, his weight being eight stone two pounds. After three months' complete rest he returned to his usual work, weighing no less than ten stone two pounds.

I saw him in the early part of the present year, when he stated that he was perfectly well, and was able to carry on his usual work, walking from fifteen to twenty miles every day.—*Percy Jakins, M. R. C. S., London Pract.*

Editors American Practitioner and News:

Hydrophobia.—In the American Practitioner for October, 1885, I reported a case of hydrophobia, up to that time the only authentic one I knew of in this part of the State. Allow me to give another.

On Sunday, April 24th last, a fox-hound, rabid and on the "march," appeared at Mr. Benjamin Coursey's, eighteen miles northeast of this place, thence he can be traced in a direct line for fifteen miles to Mrs. Robey's, where he arrived late at night, after which he was not seen. He fought a number of dogs along this route, some of which were killed without delay, the others confined and watched; all these last became rabid in from two to three weeks and were then killed.

About sunset Mr. W. P. Christian, a farmer, aged sixty-four, in good health, saw the hound fighting with his dogs and approaching his house. As he stepped out of the door the dog sprang at his face and tore from the right side, over the lower jaw, a piece of skin and flesh as large as a half-dollar. This wound was neither excised nor cauterized. Mr. Christian, believing in the efficacy of the "mad stone," went immediately to Winchester, Tennessee, and had one applied to the wound, to which it adhered for several hours; failing to stick upon a re-application, he was assured that all the poison had been "drawn out." Satisfied, he returned and went to work as usual. The wound gave little trouble, and on May 27th, thirty-two days after its reception, was nearly closed. On the morning of that day it began to pain him, and he had trouble in swallowing water; this increased, and in the afternoon it became impossible; he was never afterward able to take the least quantity. Slept some Friday night, though frequently aroused by smothering spells. These grew more frequent and severe through Saturday. In the afternoon Dr. Sarver saw him and recognized the well-known symptoms of hydrophobia: Violent spasms and intense suffering upon every attempt to put water to the lips, free expectoration of a tough, creamy looking sputa, incessant hawking and clearing of the throat, hurried respiration, difficult articulation, great restlessness and intense thirst. He grew rapidly worse through the night. When I saw him at 8:30 o'clock Sunday morning with Dr. Sarver, the wild expression of his eyes, the appearance of terror and pain depicted in his countenance, dry and parched mouth, incessant clearing of the throat, horrid feeling of suffocation, short jerking respiration, snappish articulation, inability to rest for a moment, writhing in oft-recurring spasms, requiring several strong men to restrain him—presented a picture of anguish indescribable, seen only in hydrophobia, and not easily forgotten nor mistaken for any thing else. He died, comatose and exhausted, at 7 P. M. that evening. Mr. Christian was more quiet and said he felt better after a pint of alcohol, largely diluted with water, had been injected into his bowels. Whether this was a consequence or coincidence I do not know. The period of incubation in the case of October, 1885, was one hundred and forty-one days, in this thirty-two days. The period of invasion dating from the time when the pain was first felt in the wound, was in the first case three and one half days, in the second two and one-half days. In both cases the first symptom was pain radiating from the wound. In neither was the wound red, swollen, or itching.

JOHN O. M'REYNOLDS.

ELKTON, KY., June 9, 1887.

THE PATHOLOGY OF FATIGUE.—Professor Angelo Mosso, of Turin, with the aid of coadjutors in his laboratory, has, for some years, been working at the physiology of fatigue, and now he has turned his attention to the pathological manifestations of that physical condition. Fatigue carried beyond the moderate stage, at which it is decidedly beneficial, subjects the blood to a decomposing process through the infiltration into it of substances which act as poisons—substances which, when injected into the circulation of healthy animals, induce *malaise* and all the signs of excessive exhaustion. The researches which seem to justify this finding are embodied in an elaborate paper, recently submitted to the Academia dei Lincei, and shortly to be made accessible in its printed Transactions. Fatigue, according to Professor Mosso, when incurred within limits regulated by the resisting power of the subject, has its pleasures and even joys—these being the expression of the organic consciousness that the active destruction of tissue is normally balanced by its reconstruction, a process yielding the sense of reinforcement and exhilaration. It was on the soldiers of the Italian army that Mosso's experiments were made, and he has convinced himself that he has arrived at practical regulations as to the amount of exertion to be put forth on the march, as to the best distribution of the halts and of sleep, and as to the lightening of the weight each soldier has to carry.—*London Lancet.*

THE FRENCH EPIDEMIC OF SWEATING SICKNESS.—The *suette miliaire, sudor anglicus,* or sweating sickness, which raged in England during the fifteenth and sixteenth centuries, and afterward figured only now and then and in a very mild form, seems lately to have taken on something of its old-time malignity in the French department of the Vienne and the adjacent departments of the Haute-Vienne, the Charente, and the Indre. What appears to be a novel feature of the outbreak is that in many cases the initial symptoms are those of measles, and the *Gazette Hebdomadaire de Médecine et de Chirurgie* states that, in one locality, the children are attacked with measles, while persons over fifteen years of age are taken with the *suette.* At the time the account was prepared there had been five or six thousand cases, and the general mortality had been a fraction over nine per cent, but in certain localities the proportion of deaths had been greatly in excess of this rate, instances being given in which almost all the members of large families had fallen victims to the disease.—*New York Medical Journal.*

THE CONDITION OF THE CROWN PRINCE OF GERMANY.—Dr. Morell Mackenzie, of London, cables to the New York Medical Record the results of his third operation upon the throat of the Crown Prince of Germany. The entire growth has now been removed by the laryngeal forceps, and the parts beneath are in an apparently healthy condition. Dr. Mackenzie says:

"Prof. Virchow has examined the specimen, and reports that its tissue showed nowhere any alveolar structure or evidence of emigration of epithelial masses. The structure consisted of slender connective tissue, which contained only on its surface enlarged elements, partly undergoing proliferation, but the latter assumed nowhere the character of an independent focal formation."

So far, then, as the microscopical examination is concerned, the disease appears to be essentially of a non-malignant character.

The disposition toward limited cell-proliferation may be caused by active inflammatory processes in tissues particularly exposed to irritation, but from any other point of view the outlook is not as promising as it might be. Every thing in the way of prognosis must now depend upon the fact whether or not there is to be any recurrence of the growth. If the latter obtains, with an increased disposition toward cell-multiplication, the chances for ultimate recovery will be on the wrong side.

Immunity by Injection of Chemical Bodies.—Dr. L. C. Wooldridge recently communicated to the Royal Society a method by which he had been able to protect rabbits from anthrax, which is of considerable interest in connection with the general question of the nature of protection in this and other diseases depending on micro-organisms. This method consists in cultivating the anthrax bacillus in an alkaline solution of a peculiar proteid body which can be obtained from the testis and thymus gland. The growth is not abundant, and after two days at 37° C., it is removed from the culture fluid by filtration. A small quantity of filtered liquid is injected into the circulation of a rabbit, and the animal can then withstand the inoculation of extremely virulent anthrax blood. The bacillus itself grown in this peculiar culture-fluid has no protective influence; it either kills or it has no effect. The result is extremely curious, for hitherto protection against zymotic disease has been effected by the communication to the animal of a modified form of the disease against which protection is sought; in Dr. Wooldridge's experiments, the protection must be produced by some chemical body the product of the activity of the bacillus. The observation belongs to a new order of facts, and appears to fall in with M. Pasteur's theory as to the method in which immunity to hydrophobia is produced by inoculation of the spinal cord of rabid rabbits. Both find some support in Prof. Cash's experiments with perchloride of mercury, in which it was shown that after animals had taken a sufficient quantity of the drug, they were no longer liable to anthrax.—*British Medical Journal.*

The Morphine Habit.—The morphia craving is a complex suffering, at the same time cerebral and peripheral, each factor of which can be relieved by appropriate treatment. The organic distress may be soothed by sparteine, which recovers the heart in the same way as a hypodermic injection of morphia. The cerebral craving (or yearning), often the more painful of the two, corresponds to a want of habitual congestion. This can be arrested by nitro-glycerine, which gives rise to the same kind of sensation in the morphia *habitué* deprived of his stimulant as the hypodermic injection. It acts, probably, by inhibition *à distance*, rather than by essential sedation of the nervous centers.—*Dr. Oscar Jennings, London Lancet.*

Anosmia Cured by Nitrate of Silver.—Dr. Rood, of Northampton, Mass., reports, in the New York Medical Record, a case of severe epistaxis in a man, aged twenty-seven, who had never enjoyed the sense of smell. The hemorrhage having recurred more than once, was finally cured by very free applications of solid nitrate of silver to the mucous membrane covering pharynx and nasal cavity. Curiously, also, the anosmia was cured, smell being quite restored on recovery.

Homeopathy as It Is.—The Medical Times, the leading homeopathic journal of New York, says: "We do not believe there is a single member of the faculties of the so-called homeopathic college in New York and Philadelphia who does not almost daily administer remedies which in no sense can be called homeopathic. In name they are sectarian, fighting with all their force for a name which binds them to exclusive practice, and yet in the sick-room unsectarian, broad, and liberal, bringing to their aid facts and suggestions culled from a large reading of the literature and experience of all schools. Dr. T. F. Allen, at one time one of the most enthusiastic apostles of so-called high-dilution homeopathy, now admits that it is unreliable and delusive, and says that homeopathy should be taught in all medical schools, but it should constitute only a part of the course of study. We do not hold that homeopathy is the exclusive and only law of healing."

THE DURATION OF MENSTRUAL LIFE.—A few years ago, Dr. Fordyce Barker stated it as the result of his observation that, contrary to the common impression, the menopause was apt to occur early in women who had not menstruated for the first time until they had passed the usual age for the beginning of the menstrual function, and *vice versa*. This view was recently supported to a certain extent by Dr. Rouvier, Professor of Gynecology at Beyrout, in a memoir on "Menstruation in the Women of Syria," presented to the Paris Société de Médecine, brief mention of which we find in the *Union Médicale*. Dr. Rouvier has found that, when menstruation begins unusually early, the menopause occurs neither earlier nor later than in the generality of women.—*New York Medical Journal.*

MILK.—An elaborate system of experiments has established the fact that no milk below 1.029 specific gravity can come from cows in a state of health. Any milk which falls below this standard is either diluted or unhealthy, or is the product of cows in an advanced stage of pregnancy, in which condition the milk is unfit for human consumption.—*Maryland Medical Journal.*

NEW JOURNAL.—We have before us number five of the Sacramento Medical Times, edited by James H. Parkinson, assisted by Drs. Wallace A. and William E. Briggs, Thomas W. Huntington, and Crocker Simmons. The Times is neatly gotten up and shows evidence of good editorial management.

THE MIXTURE OF CHLOROFORM AND ETHER AS AN ANESTHETIC.—Dr. Rose, of New York City, says: "It is always a delight if we can prescribe a pure and simple article instead of a compound. But, as Nussbaum says, there are many who are not contented with a pure and simple prescription; they do not feel quite well in such case, they commence at once to mix, and finally they do not know themselves what they are dealing with. A mixture of ether and chloroform, according to Nussbaum, acts as ether, if this drug, and as chloroform, if the latter is even in predominating quantity." *Medical Record.*

A SPECIALIST IN TYPHOID FEVER.—Dr. Albert Robin, who has just been elected a member by a large vote, is now the youngest member of the French Academy of Medicine. He is only thirty-eight years old, and is already one of the most brilliant of the savants of France. Dr. Robin has made a specialty of typhoid fever, and out of twelve hundred patients he has never lost one.

A daily paper is responsible for the truth of the report of Dr. Robin's magnificent percentage. Either typhoid fever is peculiarly mild, or the report—well, there is one alternative.—*Canadian Practitioner.*

THE report of the English commission on M. Pasteur's prophylactic will contain experimental and other evidence accumulated by the committee, strongly supporting both the theoretical views of M. Pasteur and their practical application. Mr. Victor Horsley, F.R.S., the secretary of the commission, has succeeded in rendering several dogs absolutely refractory to the virus of rabies in any form.

THE BACILLUS SCARLATINÆ.—At the June meeting of the Edinburgh Medico-Chirurgical Society specimens of the organism discovered by Dr. Edington in scarlet fever were demonstrated under the microscope. On the proposition of Professor Chiene, a commission was appointed to inquire into the results of Dr. Edington's research, and to bring a report to the Society at its special meeting in July, when the subject of scarlatina is to be discussed.

Dangers of Foreign Practice.—The ignorance and superstition of the uneducated populations in foreign countries are often the source, not only of annoyance, but of serious danger to medical men sent to help them in times of epidemic. In the Argentine Republic a physician was lately murdered by peasants because he refused to drink a bottle of carbolic acid which he had used for purposes of disinfection. In Sicily, quite recently, several practitioners who had undertaken to disinfect the houses in which patients had died from cholera were hooted and pursued by the inhabitants, and only escaped severe injuries by the intervention of the police.—*British Medical Journal.*

American Physicians.—Of course the number of European practitioners is considerably in excess of that of the United States, but even with this fact in view, it can not be denied that the proportion of original contributions from America is below what it ought to be. The fact is, probably, that Americans attach too much importance to the "almighty dollar," and value it too highly to allow their best men to pass their lives in the pursuit of knowledge and knowledge only.—*London Medical Press.*

Salol in Sciatica.—Dr. v Aschenbach, of Corfu, reports in the *Fortschrith der Med.* that suffering from sciatica, for which all known remedies have been tried in vain, he at last resolved to try an unknown one—to himself, at least, unknown as a remedy for sciatica. In the evening he took a dose of half a gram of salol, and at night one gram, after which he fell asleep, and remained perfectly free from his pains.—*Technics.*

Lanolin v. Lard.—Experiments made with a view of determining the relative value of lanolin in promoting absorption through the skin have been reported upon by Dr. Guttman in the Med. Chron., potassium iodide and salicylic acid being used, as being readily detected in the urine. Ointments of equal strength, made with lanolin and with lard, were used upon four different patients, and, in the subsequent examination of the urine, the most frequent and distinct indications of the absorption of the iodide or of salicylic acid were found after the use of the lard ointment. At any rate, the results are considered to prove, at least, that lanolin possesses no superiority over lard in promoting the absorption of potassium iodide or salicylic acid through the skin.—*London Medical Press.*

Professor Erichsen, who is by marriage connected with the royal family of Germany, has recently been made a peer.

SPECIAL NOTICES.

Dr. Thos. Little of Spirit Lake, Iowa, in comparing Papine with other forms of Opium, says: "I have been using Papine for the past two months. It meets the requirements of a class in which opiates are indicated. but in which the 'remedy is worse than the disease.' One case in particular has given me a great deal of trouble for years. I have tried opium in every form, and many other narcotics, alone and in combination; but constipation, nausea, and nervous prostration have been the invariable results. Some two months since I obtained some Papine, and commenced on this case with the happiest effect; no nausea, no constipation, no prostration. I have been prescribing it in my practice since with the greatest satisfaction to myself and my patients."

There is no subject of more practical and timely interest to the general practitioner than that of infant feeding and infant foods. Messrs. Fairehild Bros. & Foster have perfected a process for modifying cows' milk to the standard of normal human milk. With the Peptogenic Milk Powder they claim to afford an artificial human milk entirely free from starch, maltose, dextrin, etc. They will be pleased to illustrate the simplicity of the process, as no one can fail to admit the logic of their position in taking human milk as the only standard upon which an infant food must be formulated.

For the initial year, the success attained by the Western Pennsylvania Medical College is phenomenal, gratifying alike to its faculty and to the friends and patrons of the institution, and assures the future solidity and prosperity of the school. The trustees have erected a substantial and complete college building, the value of which is greatly enhanced by virtue of its location, immediately adjoining the Western Pennsylvania Hospital, one of the first importance among the large general hospitals of the United States. The Winter Term for '87 and '88 opens September 27th and continues six months. For catalogue, address Prof. W. J. Asdalc, Secretary, Pittsburgh (See advertisement in this issue).

Robinson's Lime Juice and Pepsin is an excellent remedy in the gastric derangements particularly prevalent at this season. It is superior as a digestive agent to many other similar goods. (See advertisement in this issue.)

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. IV. LOUISVILLE, KY., AUGUST 6, 1887. NO. 3.
[NEW SERIES.]

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

EFFECTS OF ASTIGMATISM OF LOW DEGREE.*

BY S. G. DABNEY, M. D.

Professor of Physiology and Clinical Lecturer on Diseases of the Eye, Ear, and Throat, Hospital Medical College, Louisville, Ky., Visiting Surgeon Eye and Ear Department Louisville City Hospital.

Although the study of the refraction of the eye is established on the most exact scientific basis, there are still several practical points not agreed upon by ophthalmologists. Among these are the amount of error in refraction, which may be considered normal, and what cases demand complete ciliary paralysis for their investigation. One of the subjects announced for discussion in the section on ophthalmology of the next International Medical Congress is the following: "Do not the slight forms of astigmatism, one quarter of a dioptre, often cause as much annoyance as do the higher grades, and do they not equally demand correction by cylinders?" The form of the question clearly implies an affirmative answer, and indicates that the opinion of Donders as to normal astigmatism is not borne out by the observation of other oculists. Thus, Donders says, "most persons are improved by $\frac{1}{80}$ cylindrical glass," and "so long as astigmatism does not essentially diminish vision, we call it normal; when it amounts to $\frac{1}{40}$, or more, it must be considered as abnormal." Now it seems more correct to say that the degree of astigmatism which may be considered normal, so far at least as the demand for correction goes, varies with the nervous temperament of the individual, his general constitutional condition, and with his occupation; thus an error which would cause no disturbance in a robust man living an outdoor life, and making but little demand upon his eyes for close and exact sight, would probably give rise to severe nervous symptoms in a delicate young school-girl or sewing woman. So, too, astigmatism may pass unnoticed so long as the subject of it is in the possession of vigorous health, but let the system fall a little below par, and a strain before of no effect becomes now of serious consequence. The beginning and close of the menstrual life in women are often attended by ocular symptoms, which must be referred to a slight error of refraction—usually astigmatism, sometimes hypermetropia—which at other times would be entirely overlooked; such symptoms, according to Norris in Pepper's system of medicine, are to be referred to vaso-motor disturbances, and are often absolutely unbearable. Another factor to be taken into account is the age of the individual, for as the power of accommodation lessens with advancing years the ability to overcome astigmatism by a compensative action on the part of the crystalline lens also diminishes. Here, again, we must accept with caution the statement of the great founder of the principles of refraction, that "astigmatism usually produces a disturbance from youth, unaltered and in equal degree, without striking variations."

Indeed, the nature of this compensative action does not seem to have been clearly understood by Donders, and was first established by Dolrowolsky in 1868; this authority clearly proved that corneal astigmatism is often overcome by an unequal contraction of the ciliary muscle, which causes the lens to become more convex in one direction than in another. In the irregular action of this muscle then is to be found one of the causes of asthenopia from astigmatism, and when this fails, or is insufficient, another "source of psychical fatigue is created by the endeavor to guess at the form of objects from the alternating images which appear in the agitation of accommodation."

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*Presented at the June meeting of the Kentucky State Medical Society, 1887.

The slight degrees of astigmatism, like the higher, we find generally of the hypermetropic variety, and very often combined with hypermetropia; usually both eyes are affected, though perhaps in unequal degree. It is stated by Landolt that even the lower forms of astigmatism are accompanied by asymmetry of the cranium, which is probably its primary cause; the same authority states that because the vertical meridian is generally the most convex, some have supposed that the pressure exerted by the lids might be looked on as the cause of astigmatism, but that exceptions are very numerous, and the reverse seems to be even the rule among the Jews.

To ascertain the amount of astigmatism, and the direction of its chief meridians, the first prerequisite is complete suspension of the accommodation. The obvious necessity for this follows from what has already been said in regard to the compensative action of the lens. The most convenient agent for paralyzing accommodation is the hydrobromate of homatropia. My own custom is to instil a drop every five minutes, for forty minutes, of a one grain to the dram solution, then, after twenty minutes' waiting, to test the sight, I often make one or two instillations of a solution of muriate of cocaine, also one grain to the dram, and believe that it lessens any disagreeable effects which the homatropia may induce, and at the same time aids in bringing about the desired suspension of accommodation. The great advantage of the homatropia is that its action is far more transitory than that of sulphate of atropia. The paralysis of accomodation usually disappears within twenty-four to forty-eight hours; on the other hand I am convinced that in certain cases the homatropia does not induce complete loss of accommodation. My own rule is, in any case where perfect sight ($\frac{20}{20}$) is not obtained under homatropia, to instill a four-grain to the ounce solution of sulphate of atropia three times a day until there is not the least evidence of remaining accommodation. Even a very slight activity of the crystalline may mislead us in various ways; either the astigmatism may be only partially revealed, and a portion thus remain uncorrected, or in the effort to counterbalance the corneal malcurvature the lens may go too far and produce an astigmatism in an opposite direction from that which really exists. I know of no way by which we can foretell whether the more powerful effect of the sulphate of atropia will be demanded, or homatropia be sufficient, but in general children and subjects of decidedly nervous temperament are likely to require the stronger agent. The error having been discovered, our course, so far as the astigmatism is concerned, is clear; whatever dissensions there may be as to the amount of hypermetropia or myopia to be corrected by a glass, there can be no question that the total degree of astigmatism should be overcome by a properly placed cylindrical lens, and, furthermore, that this correction should be constantly maintained both for near and distant work. When the astigmatism is associated with hypermetropia, then the course I pursue is to leave from .5 D to 1 D of the latter uncorrected, and similarly in regard to a combination with myopia we must be guided for the latter by the principles regulating its treatment.

In illustration of some of the symptoms of a low degree of astigmatism, I may cite the following cases:

Miss T., age eighteen, spending her last year at school, of nervous temperament and rather depressed general health; eyes have annoyed her more or less for three or four years, the annoyance consisting of pain in the supra-orbital region and occasional momentary loss of sight; "every thing becomes blurred and confused;" she suffers also from severe occipital headaches; wore glasses which had been prescribed for her for two years, but they were unsatisfactory and were laid aside about one year ago. On testing the sight I found each eye to possess perfect visual activity, but after instillation of homatropia the sight of each was reduced to $\frac{20}{50}$ and restored to the normal by +1 Ds ○ +.5 D cyl. axis 90°; allowing + .5 D for the natural tension of the ciliary muscle, + .5 Ds ⊂ + .5 D cyl. axis 90° was prescribed for each eye and the spectacles directed for constant use. She returned a few weeks later to say that her headaches had ceased, she could read without fatigue, and there had been decided improvement in her general health.

Quite a different group of symptoms were presented by Mr. H., a commercial traveler, age thirty. He does but little reading or other near work, and the trouble complained of chiefly was a pain in the right upper eyelid whenever he was exposed to strong light or wind, as was frequently the case in his buggy drives across the country; was formerly subject to severe neuralgias accompanied by intense painfulness to light. My first surmise, on hearing this history, was that exposure re-excited a neuralgia limited to that branch of the sup. maxillary which supplies the upper lid, and I was inclined to think that if a refractive error were the cause, other symptoms of asthenopia would also be present. On testing his sight, however, I found that each eye possessed only $\frac{20}{30}$ visual activity, and that horizontal lines were much clearer than the vertical, and that + .75 D cyl. axis 90° gave $\frac{20}{20}$ and rendered all meridians equally clear. These glasses were ordered to be constantly worn, and Mr. H., whose home was in Eminence, called to see me after a month or so, and told me that they had entirely relieved his trouble.

Still other phenomena were presented in the case of my friend Dr. S., age twenty-six. For several years after any continued application or after exposure to bright light, such as the electric light, his eyes have ached and a red band run across the conjunctiva on either side of the cornea, most marked on the nasal side of the right eye. With accommodation he was found to possess perfect sight, and even after its paralysis only a few of the letters which should be read at twenty feet were not distinguished. — .5 D cyl. axis 180° in the right eye and + .5 D cyl. axis 90° in the left rendered all the letters perfectly clear, and the constant use of these glasses has given great relief. The eyes do not become easily fatigued nor the conjunctiva hyperemic, and so long as he reads by daylight or a good kerosene lamp the doctor experiences no difficulty.

Though paralysis of accommodation is always the safest and surest course, cases occasionally present themselves in which it may be dispensed with, as in the following:

E. H., a manicure, age twenty-five, complains that her eyes soon become tired and every thing becomes obscure to her. Examined without the use of a mydriatic, each eye was found to see only $\frac{20}{30}$ and to discern vertical lines much more distinctly than horizontal. + .5 D cyl. axis 90° gave $\frac{20}{20}$ and rendered all meridians equally clear. These glasses were ordered without further examination, and proved entirely satisfactory.

Vertigo is not infrequently a result of even very slight degrees of astigmatism. Thus Mr. B., age twenty-three, complained that after reading a short time he suffered from great dizziness and fatigue, and would have to lay aside his book. + .25 D cyl. axis 70° relieved his trouble entirely, though he would wear them only for seeing at short distances.

Sometimes the symptoms related point very characteristically to the nature of the affection. My friend Dr. D. declared that he was unable to see objects in an instant, but must have a certain time to fix them, so that he often passed friends on the street without recognizing them when they were quite near to him, but if he saw them at a greater distance and had time to keep his eye on them for a moment or two he could discern clearly who they were. An astigmatism of + .5 D axis 60° in the R. E. and + .25 D axis 110° in the left being corrected, his difficulties were removed. Inflammation of the conjunctiva may be kept up by the strain necessitated by errors of refraction. In illustration I may mention the case of Mr. H., a printer, age twenty. Called to see me in October, complaining that his eyes mattered and stuck together every morning. No other subjective symptom except slight itching and burning of the lids occasionally. On examination I found slight but clearly marked trachoma. The usual remedies were applied, with the result of improvement but not entire relief. After quite a protracted course of this treatment I determined to examine his refraction, though I did not think it likely that this could be much at fault without causing other asthenopic symptoms in an individual whose occupation demanded such constant ocular effort as printing. I found, however, an astigmatism of + 1 D in one eye and + 1.5 D in the other, which reduced his visual acuity to $\frac{20}{50}$, and whose constant correction quite relieved his annoyance.

One other feature in the treatment of this case is perhaps worthy of mention, and that is the difficulty the patient experienced in accustoming himself to the glass. Thus, on testing his sight again after a week's use of spectacles, I found it was still only what it had been without correction; that is, $\frac{20}{50}$. Accordingly, following a hint given by Fox and Gould in their little manual on the eye, I directed the instillation once a day of a weak solution of sulphate of atropia (gr. $\frac{1}{100}$ to water 1 oz.). The spasm of the ciliary muscle was thus overcome, and after a week or ten days' use of the mydriatic the glasses were accepted with ease and gave the proper visual acuity.

One word, in conclusion, as to the selection of eye-glasses or spectacles in astigmatism. It is certainly of the greatest importance that the glass be held steadily and its axis maintained constantly in the same direction, and it seems reasonable that these ends should be more perfectly attained by well-adjusted spectacles, and these, accordingly, it is my habit to order; and yet I know of several cases in which eye-glasses have given perfect satisfaction, and they are usually preferred by the patient.

LOUISVILLE.

SURGICAL EMERGENCIES.[*]

BY O. D. TODD, M. D.

Though the modifications in the treatment of surgical emergencies during the past year are few, some of them are important. I do not find, in such literature as I have had access to, any notable changes in the old form of primary treatment of fractures, dislocations, contusions, etc., accidents which make up a large part of surgical emergencies; but the past year has been productive of many discussions concerning the antiseptic treatment of wounds and the immediate management of gun-shot injuries of the abdomen. Beside which the resources of abdominal surgery have made some additions to the treatment of lesions affecting the viscera.

Though the opinions of surgeons of experience are not by any means reconciled to one view, yet the antiseptic treatment of wounds has become the common custom in surgical centers of the East, and is being rapidly adopted all over the land.

The results claimed for the solutions of corrosive sublimate in strengths varying from one one-thousandth to one five-thousandth are a series of marvelous histories of immediate union and union by first intention.

The clinics in New York and Philadelphia exemplify daily the advantages of these measures in the closing of antiseptic wounds and primary union after capital operations. Though it is confessedly impossible to prevent an opportunity for sepsis in most accidents producing external wounds, because, before the antiseptic can possibly be used, germs may come in contact with the open surface, yet compound fractures and dislocations and lacerations by machinery and railroads are healed with astonishing facility, or are, at any rate, understood as in every way promising more under careful and thorough antisepsis than by former methods. Though carbolic acid still retains the confidence of the profession as before, the inconvenience of manipulating solutions of it, and the irritation it occasions in some wounds, render it less popular than the easily managed corrosive sublimate. Concentrated solutions of corrosive sublimate, to which five parts of common salt and ten parts of glycerine are added to favor permanent solution, can be so conveniently carried about as to make the antiseptic treatment of every wound as convenient as the tying of arteries and the introduction of sutures.

Tablets of corrosive sublimate and chloride of ammonia are manufactured by Wyeth Bros. and sold at a low figure (denominated Antiseptic Tablets), one added to a pint of water making one one-thousandth. The various gauzes of iodoform and carbolic acid are, it is true, rather too expensive for common use, but an ordinary pepper-box filled with iodoform and a bundle of absorbent cotton will alone make an armamentarium for antiseptic dressing that will accomplish most practical details. The solutions of mercury most commonly used vary in strength from one one-thousandth to one five-thousandth—the solution one two-thousandth probably being the most generally suitable.

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[*] Read at the June meeting of the Kentucky State Medical Society.

Very many other materials for antisepsis are before the profession. The principle, however, is the point of importance; hence, if in corrosive sublimate and carbolic acid we have all the advantages and most convenience, they are by all odds the materials for emergency practice.

Solutions of carbolic acid one twentieth to to one fiftieth are necessary for ligatures and instruments. In suppurating cavities attended with odor carbolic acid has perhaps advantages over the mercury. Corrosive sublimate corrodes and blunts steel, hence it is not suitable for a wash for instruments.

The details of antiseptic surgery apply in the same order to the treatment of wounds as to operations. Hemorrhage is controlled, the wound thoroughly cleansed and freely irrigated with the solution, the hands of the surgeon are washed in the antiseptic, the instruments treated as described ; all the precautions of dressing are to be observed, antiseptic drainage, ligatures of catgut, sutures of catgut or carbolized silk and an overdressing of iodoform or carbolized gauze. Wounds treated in this manner often do not require redressing for a week or more, and frequently do not suppurate at all. A great gain in time and comfort as well as a greater one yet in safety from septicemia is thus obtained, if even part of the claim for antiseptics be realized—whereas the advantages of care and cleanliness are enough to recommend the plan to all surgeons, if nothing better comes of it. In relation to this subject is a suggestion by Bergmann, of plugging with iodoform gauze wounds in which recurrent hemorrhage is to be feared. He allows the plug to remain in from one to five days, and on its removal sutures the wound as in a recent incision without even freshening the edges. He reports six or eight cases in which he allowed such a plug to remain three to five days and then got primary union. In wounds in the neck and cavities not easy of access, and in deep wounds where the artery can not be got at without enlarging the wound, a course of this kind might often prove most appropriate. In the treatment of wounds, a report is made by Tillaux of a successful suturing of the median and ulnar nerves after division, in which sensation returned on the next day—primary union.

I saw a case presenting almost the same history two days since, in which the wound made by a jagged piece of glass divided not only the nerves but the muscles of the forearm down to the bone. The muscles as well as the nerves were reconnected by carbolized silk (catgut not being at hand), both vessels were tied at each end, and a superficial continuous suture closed the wound. I am not able to say as yet whether the wound will require opening, to-day being only the third day. Primary union of an injured nerve is not likely to occur, as the divided ends tend to degenerate, and union is effected by granulation. However, Tillaux thinks if primary suturing is not successful, secondary suture should always be employed, since the union by granulation, where the ends are much separated, often fails to re-establish sensation and motion.

In the New York Medical Journal of November 27, 1886, the views of several leading surgeons are expressed with regard to the management of gun-shot wounds of the abdomen. W. S. Tremaine, of the U. S. Army, recommends exploratory measures after gun-shot wounds of the abdomen presenting such symptoms of wounded intestine as prolonged shock, lowered temperature, anxious countenance, great pain, restlessness, tympanites, and feeble pulse. Escape of blood from the anus is rarely an early symptom. Abdominal section under these circumstances adds almost nothing to the danger, it favors removal of clots, allows exploration of intestines, and settles the risks in the mind of patient and family. Enterorrhaphy is indicated immediately if perforation be found. The operation, when indicated, should be done at once, to prevent extravasation, control hemorrhage, and prevent if possible peritonitis. Time should be allowed to obtain good hygienic surroundings and skilled assistants.

Bryant, of New York, in the same discussion suggests several diagnostic points: direction and situation of the wound, indications of internal hemorrhage, bloody stools after the injury. Tympanitic resonance over the liver is highly diagnostic, so also is severe and prolonged shock with intense anxiety and restlessness.

W. T. Bull insists on laparotomy in all cases indicating perforation, declaring that the usefulness of the surgeon is circumscribed by the difficulties of positive diagnosis, when the solution by laparotomy would add but little to the gravity of the injury. Chas. T. Parks of Chicago advocates the immediate performance of laparotomy and then absolute rest, incision in the median line, careful and full exploration. These views are all comparatively new.

The history of abdominal surgery during the past year is one of bold and aggressive progress. In a paper read before the American Surgical Association, Nancrede of Philadelphia, in a most thorough *resumé* of the subject of abdominal section for gun-shot wounds, in which he requests the Association to express an authoritative opinion on the subject, conservatively expresses the view that, under ordinary circumstances, experience and knowledge contribute largely to the success of the operation. He appears to believe that an unskilled operator will do more harm than good, and that under such circumstances the case had better be left to nature. He believes, however, that though about ninety-two per cent of penetrating wounds of the abdomen in which perforation is probable terminate fatally, skillful laparotomy with thorough antisepsis will lessen the mortality greatly. His paper is perhaps the fullest on the subject yet published, and abounds in interesting and valuable suggestions.

On the subject of strangulated hermia, Conner, of Cincinnati, goes over the details of thirty-three cases operated on, of which twenty-one died. He determines from careful analysis that in but one of the twenty-one fatal cases was death caused by the operation, the other fatalities being due to delay in seeking proper relief. He urges early operation, with but little delay in taxis, the danger of which manipulation he strongly emphasizes.

As an example of the facility with which the operation may be accomplished, I may instance a herniotomy I had occasion to make in February last, on a farmer aged fifty-seven. He presented unmistakable symptoms of strangulation, the tumor being tense and painful, and the vomiting distressing and frequent; pulse and temperature were good. Skilled assistants not being at hand, I chloroformed him myself, and with an ordinary bistoury from my pocket-case cut down upon the stricture, which was external to the sac. He was dismissed cured in about eight days.

In a recent number of the Journal of American Medical Association, N. B. Carson, of St. Louis, after reviewing the condition of the bowel in strangulation, and considering the rate of mortality, assumes that, even where there be no perforation, yet the putrid condition of the bowel long strangulated may easily light up fatal septic peritonitis. To remedy this condition he suggests, in lieu of an artificial anus, that enterectomy should be done in suspicious cases, the continuity of the bowel being restored by suturing the healthy ends together with carbolized silk or catgut, the Lembert suture being used for the bowel. He analyzed twenty-four cases, in which nineteen are primary operations and five secondary. Of these twenty-four cases, eight died. Of these eight, seven were moribund at the time of the operation. In but one case terminating fatally was the condition at the time of the operation described as good.

EMINENCE, KY.

PNEUMONIA IN SOUTHERN KENTUCKY.

BY C. A. ELLIOTT, M. D.

Thirty-five years ago, in the spring of 1852, I landed at a small, flat, muddy town on the Ohio River on my way to Ballard County. That town is to-day the beautiful city of Paducah. I located in Ballard County to practice the profession of my choice. In my associations with the people many of them spoke of winter fever, often asking me if I thought I could cure it. I answered by telling them that I did not know, that I had never seen any of it. All the inhabitants seemed to dread it. The following winter I was called to a very sick man, and upon examination found him to have pneumonia. Very soon some friend of his asked me what I thought was the matter. I said, he has pneumonia. He said, "Why, Doctor, he has winter fever." This was my first intimation of what they called winter fever. By reflecting upon pneumonia and the treatment of it in upper Kentucky, where I was reared, I quickly saw that it was a very different grade from any I had ever seen, and consequently would require different treatment. The disease I knew was treated in upper Kentucky with the lancet, a calomel purge, tartar emetic every hour or two, and senega snakeroot tea occasionally as an expectorant. Under this treatment I have seen numbers of cases come into a convalescent condition in twenty-four or forty-eight hours. This was the mode also taught in the books and by the professors at that time.

I will stop here and give a short sketch of this patient's symptoms. He had a chill the day before, followed by fever, cough, a dull pain in the side, dusky flush of the face, heavily coated tongue, frequent respiration, dullness on percussion over the portion of lung affected, with a distinct crepitant *râle*, there was expectoration, a tenacious brick-dust sputa, and a frequent, feeble pulse. I concluded not to bleed this man, but put him upon the following treatment: a powder of calomel, opium, ipecac, and soda every three or four hours, which was continued until the tongue became a little soapy, begining to clean at the tip, and the secretions in good condition, opium enough being combined with the calomel to prevent purgation, at the same time quinine was given every two, three or four hours, and continued regardless of the paroxysms of fever. Hot fomentations or turpentine stupes were applied over the affected lung and an expectorant exhibited consisting of syrup senega and squills. In the mean time, the patient becoming more prostrated, pulse more feeble and rapid, I added to my treatment alcoholic liquors at such intervals as the case seemed to require. If the patient was not better by the fourth or fifth day he was blistered, and generally with marked relief. I am satisfied that I have since seen convalescence established in many cases by drawing a good large blister. The result of treatment in this case was satisfactory, the patient recovering. This plan of treatment was pursued generally in my cases for a number of years, with slight modifications in some particular instances. I then resorted to a more stimulating expectorant, viz., carb. ammonia, port wine, syrup senega or syrup wild cherry, the treatment otherwise being much the same. I have never used the lancet in a single case in this section of the State. I have relied very much on the mercurial course.

I have seen and treated a great many cases of pneumonia since that time—from five to twenty every winter. I think, of late years, that many if not all the rooms of pneumonia patients are kept too close, not admitting a sufficient amount of fresh air. This conclusion I draw from the fact that I have treated many cases successfully in open log cabins, with nothing but boards nailed over the spaces between the logs, and have known it at night to snow all over the bed on which the patient lay. Under such conditions I have often been quite solicitous as to my patient's welfare; but upon my arrival next morning would find him in nowise the worse. In fact most of my cases for a number of years were in just such houses. I remember to have treated one man for pneumonia for six or seven successive winters who lived near the river in an open log house. It is but just to say that his attacks were not of the worst type.

From these facts which have come under my own observation, I have long since been driven to the conclusion that much of my success was attributable to the free ventilation of the apartments of the sick.

It has been said very truly, a well man never has pneumonia. My observation in this malarial section of the State proves this in the main to be true. I have observed that those persons who, during the latter part of summer and fall, had frequent attacks of intermittent or remittent fever, with some enlargement of the spleen, engorgement of the liver, and a swarthy yellow skin, furnished a large majority of the cases of pneumonia the following winter. For this reason I put them upon quinine and a stimulating course of treatment, and have continued the mercury from day to day, from the fact that one or two doses do not relieve the engorged condition of the liver. I soon found that it took a course of mercury to relieve the liver of its engorgement and secure the black consistent stools we so much desire to see. I have used veratrum and aconite, but have not been satisfied with their effects except in a few cases, being strongly impressed with the idea that no depressing agent is beneficial in the pneumonia of Southern Kentucky.

I hope you will not conclude from the foregoing that I have never lost any patients with this disease. My observation is that some cases of pneumonia will die under any or all the different modes of treatment that have so far been instituted, and perhaps more people die from pneumonia in this portion of the State than in any other district. I will say, however, that I have passed through as many as three winters without losing a case, and then I would lose one or two, but a very large majority of my patients recover.

In thirty-five years' experience I have never been able to better this general plan of treatment. About 1875 or 1876 we had a late overflow of the Ohio River, I think in July; the bottoms were covered from one to three miles wide, vegetation at the time being very luxuriant; for some weeks after the water receded there was a fearful stench emanating from the decomposition of so much vegetation, and during August, September, and October the whole country, so to speak, was sick. The people were stricken down with intermittent, remittent, and some severe congestive attacks. These diseases were not attended with much fatality, but few families escaped without more or less sickness. The following winter we had much more pneumonia than was usual, and it was attended with more fatality than I had ever seen. That winter I lost one third of my cases, and some physicians practicing in the country told me they lost over half.

I saw patients of other physicians and of my own who were doing well up to the sixth day, sputa clearing up, skin moist, pulse 80, respiration easy, in less than six hours who became delirious and could scarcely be kept in bed; the sputa again became very bloody and the other symptoms aggravated. No treatment availed. This great fatality was doubtless attributable to the poisoned condition of the system from such an unusual amount of vegetable decomposition in the extreme hot weather of July. After this winter passed the disease became very managable again, and has continued so.

In 1883 I had twenty-one cases with only one death—still in open log houses. After this winter I changed my location to Paducah, and have seen but little of it here. I am much inclined to the opinion that pneumonia is a specific fever with a tendency to run its course in seven or eight days, and my observation is, that if it does not yield to treatment by the seventh or eighth day, the sputa continuing bloody, the patients generally die.

From my experience and observation of pneumonia, I gather a few points which I hope to impress upon you in the management of it as it occurs in Southern Kentucky: (1) I hold that the mercurial combined with the stimulating course of treatment from the beginning has been more successful than any other plan I have ever been able to discover. (2) We must aim to secure free ventilation of the apartments at all times. (3) That the treatment laid down in the books upon this disease by our very best authorities is not applicable to all localities, and certainly will not be successful in the disease as it exhibits itself in this low malarial section of the State.

PADUCAH, KY.

RETRO-INJECTION AND IRRIGATION.

BY E. R. PALMER, M. D.

Professor of Physiology and Physical Diagnosis, Medical Department of University of Louisville.

In reply to numerous inquiries regarding the details of retro-injection and irrigation of the urethra, in the treatment of gonorrhea, I have prepared the following:

To properly apply the modern idea in the treatment of urethritis, one needs a fountain syringe, preferably of glass, hung not over seven feet from the floor, a rubber tube long enough to reach the floor attached, with an ordinary coarse glass pipette inserted in the free end, the rubber tube guarded by a good pinch-cock. If retro-injection is to be practiced, a No. 10 velvet-eyed gum catheter should be slipped upon the pipette. If irrigation, a Kiefer nozzle (Hazard & Hazard), armed with a bit of small rubber tubing, goes on the pipette instead. In either case the operation is performed standing by some convenient receptacle, the patient urinating *immediately* beforehand. In retro-injection a small amount of pure olive oil saturated with hydronapthol (hydronaptholized oil) is smeared over the catheter (I do not like glycerine, which is usually recommended). The catheter should be slowly and gently inserted about six inches. Not infrequently the operator will feel its tip touch the cut off muscle. When this is the case the instrument should be withdrawn about half an inch, the pinch-cock opened and the fluid, to be alluded to later, will be found to escape freely around the catheter. Now and then, especially in the more inflammatory stages of disease, the fluid finds its way back of the compressor into the bladder. This is the case also in irrigation. The power of the compressor is evidently lessened by the existing inflammatory state. At such times the patient complains of a desire to urinate, and on disconnecting at the pipette he readily expels the accumulation. No harm follows this accident. In irrigation, somewhat more skill is required. The Kiefer double nozzle, post-paid, costs sixty-nine cents. On examining it, it will be observed that the apertures of entrance and exit of one half are larger than those of the other. Dr. Kiefer recommends that the large channel should be used for the exit tube. An inch or two of rubber tubing fitted to the other side adapts it for coupling with the pipette. The patient should be taught to irrigate himself. Standing by the catch basin, the penis is held by the glans between the left thumb and forefinger, these two at the same time separating the lips of the meatus. With the right hand the nozzle is gently introduced into the meatus, the finger and thumb of the left at once compressing the meatus around it. The pinch-cock is then opened. The direction of the nozzle should be gently changed until there is a free flow of injected fluid from the exit tube. As soon as this appears the patient extends the right forefinger, bringing its tip in contact with the end of the exit tube so as to stop the flow and balloon the urethra. By thus closing and opening the orifice of this tube at short intervals the whole anterior urethra is as repeatedly distended and washed out until all the injecting fluid is exhausted. Two or three lessons will suffice to make an expert of a tyro. In either retro-injection or irrigation it is well to let the tube wash out and fill with fluid before closing the pinch-cock. Both the nozzle and catheter should be kept, when not in use, in a 1 to 2,000 bichloride bath and the catheter frequently tested to see that it is intact. Whichever process is selected, it should be practiced twice daily and not less than twenty ounces of fluid used.

For washes a few remedies will suffice. First, the mercuric bichloride solutions may be made on the rough basis of five hundred drops to the ounce of water. A reservoir of 1 to 10,000 solution, several gallons in quantity, should be kept always ready. Boracic acid is soluble at between twenty and twenty-five grains to the ounce. A little borate of soda added favors the solubility of the acid. Such a reservoir should also be in readiness. A box of tannin and a horn spoon, an "iron clad" coal oil heater, a galvanized iron stew-pan, and a pint graduate complete the armamentarium. The strongest wash used should be 1 to 10,000 bichloride. A brimful graduate, over twenty ounces, heated until as hot as the hand can bear and then transferred to the fountain, equips for either retro-injection or irrigation. Where severe pain follows, this should be reduced one half or more with the boric acid solution. Where irritation is severe, the soothing boric solution, either full or half strength, should be used alone. Some chronic cases call for a combination of both with also a fourth or half ounce of the tannin. Such mixture is compatible, while one of sulphate of zinc and the bichloride is not. Again, in old atonic cases cold instead of hot injections seem sometimes to be the thing. Indeed, in the same case one should frequently vary combinations, strength, and temperature until the fit is found. This however may safely be said, hot bichloride in acute cases will usually stop purulency in twenty-four hours, and when persisted in effect a rapid cure. Those desiring a more elegant retro-injecting apparatus or one ready prepared with either alcohol lamp or gas attachment, may order a Holbrook-Curtis retro-injector, at the cost of about three dollars of Hazard & Hazard.

I extract the following from a private letter received recently from Dr. George E. Brewer, whose article on modern treatment I have previously quoted.

"Since seeing you I have been using irrigation at Roosevelt twice daily, with results even more satisfactory than those obtained before writing my paper."

LOUISVILLE, KY.,
721 West Jefferson Street.

Societies.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

Thirteenth Annual Meeting, held at Crab Orchard Springs, Ky., July 13, 14, and 15, 1887.

FIRST DAY.

Nothing but routine business was transacted at the first session. At night the President, Dr. I. N. Love, of St. Louis, delivered his address. He discussed in an able manner, Higher Medical Education, and the Abuse of Medical Charities.

MORNING SESSION OF SECOND DAY.

Dr. Preston B. Scott, of Louisville, presented a Report on the Uses of Chloroform in Obstetrics. He said, that after an experience of thirty years, that he was able to speak decidedly in its favor. Each year lessened his fears of its evil results in labor, and convinced him that its retarding effects in such cases were not nearly so great as thought to be by most practitioners. He thought that the use of chloroform was delayed too long—that it was often needed in the early stages to relieve pain, and that, for humanity's sake, it ought to be used more frequently. He believed that it was not the cause of *post-partum* hemorrhage as often as supposed. In one particular case, where hemorrhage had occurred when it was used, he used it at a subsequent confinement, and had hemorrhage also—on another occasion he attended the same lady in her accouchement, and did not use chloroform, and had just the same amount of bleeding. He was of the opinion that it ought not to be withheld on account of fear of hemorrhage—and that heart disease rarely contra-indicated its use in the parturient woman. Care, however, should be taken to examine the heart critically, and gauge its use accordingly. He believed that the harmful results were due to its prolonged use. He rarely used more than one and a half ounces in a labor. In concluding his remarks he paid a handsome tribute to Sir James Y. Simpson for having introduced it into obstetrical practice.

Dr. Owens, of Evansville, was of the opinion that it was better to use chloroform in those cases where it was known that heart disease existed. He always used it freely in such cases, and without any fear of evil result. He used it in all cases without exception.

Dr. William Bailey said that he fully indorsed the remarks of Dr. Scott, but thought that Dr. Owen's remarks were too general. He was confident that it was dangerous in cases where a fatty heart existed, and would not administer it to a person so afflicted. He considered the parturient woman a most favorable subject for its use; was satisfied that it retarded labor in a small per cent of cases, and believed it doubtful if it ever increased the dangers of hemorrhage. He wished to be recorded as a positive advocate of its use.

Dr. W. H. Wathen said that it did not receive the attention which it deserved. He was confident that it sometimes retards labor, and could not understand how it was possible for any one to think otherwise. He had seen labor almost arrested by its use. Had often seen it subdue irritation of the os and neck, thereby hastening labor. He administered it without hesitation. He often intrusted it to a nurse after a few preliminary instructions. He did not use a cone, but preferred to place a small cloth or handkerchief in a tumbler or mug; by this method it was almost impossible to exclude the proper amount of air. He said that there were two extremes in its administration, and that there was also a happy medium, which ought to be followed, and that each case should be carefully selected.

Dr. A. D. Price, of Harrodsburg, had used it for many years; has seen it retard and facilitate labor, but had never seen any hemorrhage resulting from its use.

Dr. J. A. Larrabee, of Louisville, said that he indorsed all that had been said save the remarks of Dr. Owen in connection with heart disease. His experience was, that when a woman had used chloroform once in labor that she always demanded it in subsequent confinements. He had seen much good result from an ordinary dose of morphia, in cases where the circular fibers about the os and neck were contracted. It paved the way for chloroform. He believed that its use often rendered the child just a little more cyanotic than it would have been, had not the chloroform been pushed quite so vigorously. He was of the opinion that much injury might be done by its injudicious use.

Dr. C. R. Early, of Pennsylvania, said that he had used it often, but had never seen any harmful results from it.

Dr. I. N. Love, of St. Louis, thought that no man who was prejudiced, and who had any fear of its evil results, ought to attempt to use it in a case of labor. He thought that in all cases of heart complications quietude should be cultivated. He was satisfied that whisky and morphia were as important in his obstetrical practice as chloroform. The dangers of hemorrhage from its use were almost *nil*. He related a case in which a woman became beastly drunk; while in that condition labor came on and terminated while she was insensibly drunk. There was not an untoward symptom during the progress of the case. Uterine contractions were perfectly normal in every respect, and the woman made an excellent recovery. The labor was perfectly natural in every respect.

Dr. W. C. Wile, of Philadelphia, said that he did not think it advisable to use whisky in labor, as it was liable to increase the danger of hemorrhage. Chloroform was absolutely contra-indicated in fatty heart. He described an inhaler for the administration of chloroform. The instrument is so constructed as to insure the regular administration of the anesthetic, and also to insure the admixture of a proper amount of atmospheric air. He thought that the amount of chloroform administered should always be measured. He asked if any one had ever seen or heard of a death from the use of chloroform in a case of labor. He had seen the child asphyxiated in a few cases, and thought it was due to the use of chloroform.

Dr. Joseph M. Mathews, of Louisville, said that whisky instead of chloroform in certain cases of heart troubles was to be desired; he had seen gratifying results from its use in such cases.

Dr. I. N. Love said that he had witnessed three deaths from the administration of chloroform. The heart was in normal condition in all the cases.

AFTERNOON SESSION—SECOND DAY.

Dr. L. S. McMurtry exhibited a specimen of pyosalpinx, from a case in which he had assisted Dr. J. M. Baldy, of Philadelphia, in March last. The case has unusual interest on account of its relation to the puerperal state. The patient was twenty-three years of age, and was brought to her second labor on February 3d. Three days after confinement she had a chill, followed by rapid pulse, high temperature, tender and tympanitic abdomen, an array of symptoms characteristic of puerperal fever. After treating her unsuccessfully in the usual manner, high temperature, rapid pulse, hectic fever, and emaciation persisting, an examination of her vagina was made. No recent laceration could be found, but a large boggy mass, tortuous, adherent, and very tender, was distinctly made out to the left of the uterus. Abdominal section was advised, and the operation promptly done. The specimen presented shows the seat and character of the disease. It is a case of pyosalpinx. The left tube is as large almost as the uterus, and was full of pus; the ovary is seen to be disintegrated, and contained pus. Both tube and ovary were imbedded in a cheesy mass and adherent to the sigmoid flexure of the colon. While breaking up the adhesions, pus welled up all around the mass. The right tube and ovary were not removed, being found to be healthy. After free irrigation of the peritoneal cavity, a drainage-tube was inserted and the incision (one inch and a half) closed. The temperature fell to normal and pulse to (80) eighty in twenty-four hours, and remained so until convalescence was completed, excepting for a few hours when drainage was obstructed. Previous to the operation the temperature was ranging near 103° and pulse 130; abdominal section, irrigation, drainage, and removal of the diseased mass immediately transformed the symptoms and quickly rescued her from a condition of impending death.

Clinical observation has shown that pyosalpinx, even of gonorrheal origin, may affect one tube only, and, the other being healthy, an ovule may pass and be fertilized. Hence pyosalpinx must be regarded as one of the causes of puerperal peritonitis. In the cases under consideration the disease antedated labor, and the peritonitis was lit up by that process. It is probable that a considerable proportion of cases of puerperal fever, so-called, are cases of puerperal pyosalpinx. The practical point he wished to make was that in every case of puerperal peritonitis a thorough investigation of the pelvis and genital tract should be made, and when such a condition as this case presents is found the abdomen should be opened and the diseased parts treated like any other suppurating and infecting mass, viz., by excision, irrigation, and drainage. He would incidentally call attention to the fact that the specimen presented was one of gonorrheal character, and illustrates the grave and far-reaching results of gonorrhea when introduced into the female genital tract—a fact not sufficiently recognized by practitioners. The speaker expressed his obligations to his friend, Dr. Baldy, for the instructive specimen presented.

Dr. W. H. Wathen said that the report of the case was very interesting. It was a case which would have been held in horror a few years since. It clearly pointed to the necessity of making a critical investigation as to its cause in all cases where fever developed in the lying-in women. He believed that many cases of so-called puerperal fever were not puerperal, but due to causes which could not be considered as resulting from parturition.

Dr. W. C. Wile thought it would be very difficult to find a case that would give similar results.

Dr. Johnstone, of Danville, said that there had been six or eight deaths in one of the London hospitals resulting from pyosalpingitis. He said that in this same hospital nineteen women out of every hundred admitted have had disease of some kind or other of the uterine appendages. He believed that the sympathetic nerves were diseased in many cases where the ovaries or uterus were supposed to be at fault.

Dr. Bernays, of St. Louis, referred to a case recently reported in a journal in which the entire uterine appendages were removed on the sixteenth day after parturition, the structures being full of pus cavities. The temperature was 105° at the time of the operation. The patient made a good recovery.

Dr. George J. Cook read an excellent paper on Constipation, which was discussed by Dr. Joseph M. Mathews, Dr. Arch. Dixon, and Dr. Dunlap, of Ohio, Dr. Wm. Portor, Dr. Gray, and Dr. Owens, of Evansville, Indiana.

Dr. G. W. McKasky, of Fort Wayne, Indiana, read a paper on a New Method of Medicating the Lungs by Means of Saturated Vapors, and exhibited a very ingenious apparatus for the purpose.

Dr. Y. H. Bond, of St. Louis, read a paper the title of which was, Must the Ovaries Go? It elicited considerable discussion from a number of the members.

THIRD DAY.

Dr. D. A. Thompson, of Indianapolis, read a paper on Acute and Chronic Suppurative Otitis Media.

Dr. Lewis H. Sayre, of New York, was introduced, and made some remarks on the treatment of club-foot.

He said the proper time to treat a case of talipes was at birth. At this time the practitioner could and ought to treat these cases. The foot should be straightened and put in position as nearly as possible, so as not to obstruct the circulation. This is done by taking the foot in the hands and forcing it into its proper place as nearly as possible, forcing it until the toes or the surface of the foot become blanched. Let it remain in this position for a few seconds or minutes, and then let it relax. Repeat this maneuver several times before putting on the bandages, and it will be found that with each effort an improvement in position will be made. The foot must be kept in position by soft bandages and straps. In addition to this, frequent manipulation, massage, electricity, and strychnia hypodermically must constitute a part of the treatment. He used the term contracture to indicate that there was a permanent change in the tissues, and that it was always necessary to relieve the tension of contractured tendons by cutting them. The density of such tissues is more than might be expected. He said, that in cases where the tendons were cut, that the correction should be a little more than might seem necessary, on account of the slight contraction which must follow in the process of repair. He had never seen non-union in a divided tendon. Subcutaneous division was always preferable to stretching such tissues. In the attempt to stretch contracted tissues there was danger of tearing other tissues, thus doing an injury. A contracted tissue may be stretched, but a contractured one can not be. When the foot has been made to assume its normal position by manipulation and bandages, it should be put in plaster dressing, and kept there for three weeks.

Dr. Sayre was elected an honorary member of the Society.

Dr. A. C. Bernays, of St. Louis, Missouri, exhibited a human embryo, supposed to be in the fourth or fifth week of development. It was obtained from a uterus after it had been removed. The peculiarity about the embryo was in its having four arteries corresponding to the branchial arteries of animals in which these vessels continue through life. It also had a caudal appendage one eighth of an inch in length. There was a small bladder-like sack attached to the distal end of the umbilical cord. The embryo was less than an inch in length. Two specimens of this character have been reported, one by Ricord and one by Costi.

Dr. Wathen thought that the bladder-like body was not allantois, as supposed by Dr. Bernays, as there could be no projection of it at the third, fourth, or fifth week of embryonic life. He thought that it might be the umbilical vesicle.

The second case reported by Dr. Bernays, was that of a laparotomy for the removal of a small tumor which could be made to change its position by manipulating it through the abdominal walls.

When the abdomen was opened the tumor was found to involve the duodenum at the point opposite the head of the pancreas, and to be adherent to it and the omentum. While separating the tumor the cystic duct of the liver and the pancreatic ducts were torn open, and the secretions flowed out into the abdomen. The stomach and pancreas were both out of the abdomen during the greater portion of the time of the operation. The tumor with a portion of the duodenum was removed, the upper cut being made high up so as to remove all the diseased tissue.

The two ends of the duodenum, or rather the lower end of the duodenum and the stomach, were incised, and the two ducts were inclosed between the ends of the duodenum and the stomach, so as to allow them to discharge into the gut.

The patient rallied well from the operation, which lasted two hours and thirty minutes. In the evening after the operation the pulse was 124, temperature 99°—at midnight pulse 130, temperature 99°. Death occurred nineteen hours after the operation.

He said that the motility of small tumors in the abdomen was not to be considered as significant of the real state of things, and no evidence of their non-malignancy, nor any guarantee against death in operations for their removal.

Dr. Dunlap, of Ohio, said that the motility of a tumor was no criterion as to its character, and was no evidence of any value. He would not open the abdomen until a diagnosis was made, his mind made up as to what he would find, and what he would do when he got the abdomen open.

He would not open the abdominal cavity to make a diagnosis.

Dr. Johnston, of Danville, was always in favor of making a diagnosis, and thought that it was often necessary to open the abdominal cavity to make it.

Dr. H. H. Mudd, of St. Louis, said that formerly it was considered that the best place for a diseased or injured gut was in the abdominal cavity. In the course of his remarks, he said that the old way of excising the gut was wrong. He explained in detail his method of ligating the vessels in sections and suturing the gut. He thought that the ordinary cambric needle was the best to use in suturing the gut, because it made a puncture and did not cut the blood-vessels, and reduced the dangers from hemorrhage to a minimum. He said that great care should be taken not to let the sutures enter the mucous surface of the gut.

The following officers were elected:

President, Dr. D. S. Reynolds, of Kentucky; Vice Presidents, Dr. Dunlap, of Ohio, Dr. Y. H. Bond, of Missouri, Dr. J. A. Thompson, of Indiana, Dr. A. R. Jenkins, of Kentucky; Secretary, Dr. Gray, of Chicago; Dr. I. N. Love, of St. Louis, Chairman of Committee of Arrangements.

Next place of meeting, St. Louis.

Reviews and Bibliography.

Treatment of Diseases in Children; including Outlines of Diagnosis and the Chief Pathological Differences between Children and Adults. By Angel Money, M. D., F. R. C. P. Pages, xiii–560. Philadelphia: P. Blakiston, Son & Co. 1887. Price, $3.00.

The reader, on perusing this work, is soon led to the conclusion that he is making the acquaintance of an author who is in love with his subject, thoroughly understands it, and withal is able to impart his knowledge in plain and lucid as well as classical language.

In too many otherwise excellent works on the practice of medicine the authors seem to have endeavored to restrict every disease to a more definite type than had been done by any of the line of writers who had labored before them in the same direction. The result is, that the inexperienced is led into endless perplexities on first making acquaintance with a new class of diseases. He finds comparatively few cases of disease that conform to the type that exists more in the author's mind than in the sick-room. This non-conformity to type is most strikingly marked in children. All through this work the writer shows an appreciation of this fact, and presents us truly a reflex of the sick-room. Dr. Money is not an advocate of excessive medication in children, urging, as the Alpha and Omega of all rational treatment, a precise diagnosis, he still insists that the fundamental principles of therapeutics in childhood are those of prevention, hygiene, and expectancy.

Recognizing the growing disposition of physicians to judge for themselves, and to reject whatsoever may be suggestive of the "*ipse dixit*," he does not content himself with assertions as to what should be, but has in all cases endeavored to give reasons for his conclusions and recommendations.

Space prevents allusion to the views of the author as to particular diseases. It is but just to say that in every desirable feature the book has no superior, if an equal, in the English language on the subject to which it relates, and whoever shall have given the little folk the benefit of the lessons it teaches, may well feel that their claims have met with just attention.

A Manual of Treatment by Massage and Methodical Muscle Exercise. By Joseph Schreiber, M. D. Translated by Walter Mendelsohn, M. D., of New York. Pages 285. Philadelphia: Lea Brothers & Co.

If the aim of an author is to make a book, and even a large one, it is surprising upon how many subjects the material may be spun out to accomplish the object. If it is a matter of concern as to who in all the wide world did this first or that first, and what some other said of him, if only one person or a few understand permutation, so that the possibilities of changes in the relative order and direction of a few simple processes are to be learned by rote instead of being worked out by each for himself when needed, then it is commendable to fill up pages and enlarge treatises on every subject to the dignity of volumes. But if, on the other hand, it is valuable knowledge that we want, we would prefer to see the largest part of the history and biography that is often woven into medical works thoroughly eliminated. It is this character of pruning that the work before us will bear with marked advantage. There is wheat in it if we could but get rid of the chaff. No department of therapeutics has developed more rapidly in the last few years than systematic mechanical treatment or massage, and there is every reason to believe that its general adoption in a rational form is one of the certainties of the future. For those specially engaged in this character of practice, the work before us will doubtless prove acceptable, as indeed it may be read with profit by all; but it is not the work for the "busy practitioner."

Wear and Tear; or, Hints for the Overworked. By S. Weir Mitchell, M. D., LL. D., Harvard. Fifth edition. 12mo, pp. 76. Philadelphia: J. B. Lippincott Company. 1887.

This little work, which, by a not uncommon process of evolution, has developed from an article contributed to Lippincott's Magazine, in 1871, into a volume, seems to be steadily enlarging its sphere of popularity and usefulness. It is written in charming diction for the popular eye, and sets forth the gospel of temperance (in its true sense) with such argument and emphasis as must carry conviction to its many readers. It would be well for every city practitioner to make this book one of his first prescriptions to such of his patients as may be suffering from brain overwork and mental worry.

The Cremation of the Dead. By Hugo Erichsen, M. D., with an Introductory Note by Sir T. Spencer Wells. Pages 264. Detroit: D. O. Haynes & Co. 1887.

Among the advocates of the revived method of disposal of the dead by cremation, none has shown himself more active or more zealous than Dr. Hugo Erichsen. This work of two hundred and sixty-four pages is the outcome of his zealous labors in that direction. The work contains the gist of the literature on the subject, and does what is really not hard to do—makes out a good case for the cremationists. It is not an easy task, however, in a country like this, where opportunities of separate sepulture are so abundant, where inhumation is surrounded with the tender associations of nearly all past history, to move people to dispose of the dead by a method different from the one that now prevails. Nor is it to be denied that the picture of the dangers of inhumation is here largely overdrawn, after the usual manner of zealous reformers.

Medical Electricity: A Practical Treatise on the Applications of Electricity to Medicine and Surgery. By Roberts Bartholow, A. M., M. D., LL. D., Professor of Materia Medica, General Therapeutics, and Hygiene in the Jefferson Medical College of Philadelphia; Fellow of the College of Physicians of Philadelphia, etc. Third edition, enlarged and improved, with one hundred and ten illustrations. 8vo, pp. 304; cloth. Philadelphia: Lea Brothers & Co. 1887. Price, $2.50.

This excellent work on electro-therapy is well known to the reading medical public. The present edition, while retaining nearly all the matter of the preceding edition, contains considerable new matter relative to the subject of galvano-faradization and electric baths. This therapeutic agent, though much overvaunted and still obscure and of doubtful efficacy in the mind of the general practitioner, has beyond question a definite though by no means extensive sphere of usefulness. The contents of this sphere and its limitations are set forth with scientific accuracy in the volume under notice.

Practical Lessons in Nursing: Maternity, Infancy, and Childhood; Hygiene of Pregnancy; Nursing and Weaning of Infants; the Care of Children in Health and Disease. By John M. Keating, M. D. Pages, 221. Philadelphia: J. B. Lippincott Company. 1887. Price, $1.00.

This little work, the author tells us, is intended for mothers and for those who have undertaken the care of infants and children in health and sickness, and he has well met the requirements of his undertaking. While it is always annoying to find patients in charge of those who think they know as well how to treat them as the physician, and who employ physicians only out of regard for popular opinion or for form, every doctor feels that there are a multitude of things which the laity might know with great advantage to the patient and satisfaction to himself. Nothing strengthens the arm of the good physician more than to have his patients in charge of intelligent attendants, who can be easily made to realize existing needs. A study of such a work as this in every household would go very far toward bringing about this desirable state of things.

The Year-Book of Treatment for 1886: A Critical Review for Practitioners of Medicine and Surgery. 12mo, pp. 304; cloth. Philadelphia: Lea Brothers & Co. 1887.

This work, like its predecessors of other years, is compiled from current medical literature by the best home and foreign writers. It brings before the reader the freshest ideas relative to therapeutics, new drugs, and the most recent methods in vogue for the management of disease. The subjects are well classified, and the work is carefully indexed.

A Compend of Obstetrics, especially adapted to the use of Medical Students and Physicians. By HENRY G. LANDIS, A. M., M. D. Third edition, thoroughly revised, with new illustrations. Philadelphia: P. Blakiston, Son & Co. 1887.

This is No. 5 of the well-known Blakiston series of "Quiz" Compends. The book has in former editions received favorable notices at the hands of our reviewer. The present edition differs from its predecessors only in the accession of certain important new matter which brings it abreast with the teachings of to-day.

Renal Colic Parasitic and Calculus: A Criticism. By J. B. Marvin, M. D. Reprint from Southwestern Medical Gazette.

A Treatise on Salol, the New Remedy in Rheumatism and Rheumatic Affections. New York: W. H. Schieffelin & Co. 1887.

On the Pathology and Treatment of Gonorrhea and Spermatorrhea. By J. L. Milton, Senior Surgeon to St. John's Hospital for Diseases of the Skin, London. 8vo, pp. 484. Illustrated. New York: William Wood & Co. Price, bound in extra muslin, $4.

On the Classification of Mental Diseases. By Ralph L. Parson, M. D., Greenmont-on-the-Hudson, near Sing Sing, N. Y. Reprint. New York: D. Appleton & Co. 1887.

The Mineral Waters of Vichy and the Diseases in which they are indicated, followed by a Sketch of some of the Principal Excursions in the Environs, with two colored Maps. By Dr. C. E. Cormack, Laureate of the Faculty of Medicine of Paris. 12mo, pp. 375; cloth. London: J. & A. Churchill. 1887.

A System of Gynecology by American Authors. Edited by Matthew D. Mann, A. M., M. D., Professor of Obstetrics and Gynecology in the Medical Department of the University of New York. Vol. 1. Three colored plates and two hundred and one engravings. Royal 8vo, pp. 789; leather. Philadelphia: Lea Brothers & Co. 1887.

Transactions of the New York State Medical Association for the Years 1885 and 1886, vols. 2 and 3. Vol. 2 edited for the Association by John Shrady, M. D., of New York County. Vol. 3 edited for Association by Alfred Ludlow Carroll, M. D., of Richmond County, N. Y. Vol. 2, 1885, 8vo, pp. 683; cloth. New York: D. Appleton & Co.; 1886. Vol. 3, 8vo, pp. 601; cloth. Concord, N. H.: Republican Press Association. 1887.

Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

At the anniversary meeting of the Sanitary Institute of Great Britain, Dr. G. V. Poore delivered an address on "The Shortcomings of some Modern Methods of Sanitation." Dr. Poore vigorously attacked the practice of mixing putrescible matter with water, or of dealing with excrement by means of water carriage. He pointed out that many diseases of the zymotic class had of late years been shown to depend upon living organic particles, which possibly multiplied in putrefying liquids, and were certainly disseminated when organic matter containing them was mixed with water and allowed to flow to rivers and wells. He contended that if an equitable adjustment of sanitary rates were instituted, the pollution of rivers act enforced against individuals, and water supplied by meter, sewage schemes in such places as the Thames Valley would soon become unnecessary, and the people would resort to what he described as the rational method of treating organic refuse—that of burial. From the treatment of organic refuse by burial, he anticipated improved public health, an enriched soil, and less overcrowding. Believing that London could not be called a healthy city, he directed attention to statistics showing a great difference in the death-rate in the Strand district, having regard to the mobility of the population, as compared with the rate in Dorsetshire.

The committee appointed to inquire into the Pasteurian system of inoculation as a remedy against hydrophobia has issued its report, which is unanimous. After obtaining information from M. Pasteur himself, and observing his method of treatment, it was found necessary to institute a careful series of experiments, under Professor Horsley's superintendence, on the effects of such inoculation on the lower animals. The first results arrived at by the committee were that the experiments by Professor Horsely entirely confirm M. Pasteur's discovery of a method by which animals may be protected from the infection of rabies. As to the period after inoculation during which immunity lasts it is still doubtful. Passing to the more generally interesting question, whether human beings bitten by mad dogs and then inoculated can be saved from hydrophobia, the committee point out that perfect accuracy in answering this question can not be attained. They give, among other reasons, the fact that it is often impossible to ascertain if the supposed mad dog was really rabid, and that the danger of a bite depends greatly on whether it takes effect on an exposed part or through clothing. As evidence of the uncertainty prevailing, they mention that the percentage of persons bitten by rabid dogs and dying of the bites is placed variously at 5 per cent and 60 per cent. With regard to the efficacy of M. Pasteur's inoculations, they state that the number of deaths assigned by those who have sought to prove the inutility of M. Pasteur's treatment is, as nearly as can be ascertained, forty out of two thousand six hundred and eighty-two, and in this number are included seven deaths from bites of wolves, and not less probably than four in which it is doubtful whether the deaths were due to hydrophobia or to some other disease. After making fair allowance for uncertainties, and excluding the deaths after bites by rabid wolves, they concluded that the proportion of deaths in the two thousand six hundred and thirty-four persons bitten was between one and one half per cent, a proportion far lower than the lowest estimated among those not submitted to M. Pasteur's treatment. Again, of two hundred and thirty-three bitten by animals in which rabies was proved, either by inoculation from their spinal cords or by the occurrence of rabies in other animals or persons bitten by them, only four died. Without inoculation it would have been expected that at least forty would have died. Among one hundred and eighty six bitten on the head or face by animals in which rabies was proved by experimental inoculations or was observed by veterinary surgeons, only nine died, instead of at least forty. Turning to the question whether M. Pasteur's system can be submitted to without danger to life, the committee state that there is no evidence or probability that any one has been in danger of dying or has in any degree suffered in health from the ordinary method adopted, that is, when the virus is injected once a day for ten days in gradually increasing strength.

The average annual number of deaths from hydrophobia, during the ten years ending 1885, was in all England forty-three, in London alone eighty-five. If, as in the estimates used for judging the utility of that method of treatment, these numbers are taken as representing only five per cent of the persons bitten, the preventive treatment will be required for eight hundred and sixty persons in all England, for one hundred and seventy in London alone. For it would not be possible to say which among the whole number bitten are not in danger of hydrophobia, and the methods of prevention by cautery, excision, or other treatment, can not be depended on.

Dr. Robinson has recently drawn attention to the results of a *post-mortem* examination of a case of ophthalmo-plegia externa and interna. The man had, along with complete paralysis of the oculo-motor nerves of the right eye, persistent pain in the forehead and temple, considerable defect of vision, and some proplosis and congestion of the lids. These symptoms were explained by the fact that chronic inflammation about the right cavernous sinus had produced neuritis of all the nerves in its wall, had obliterated the venous canal and had also led to partial obstruction of the carotid artery. The lesion was in all probability syphilitic, the patient having died from cellulitis occurring round a specific ulcer of one leg. Dr. Robinson relates two other cases of one-sided ophthalmo-plegia externa and interna in which the symptoms were precisely similar, both of which entirely recovered under the use of iodide of potassium. He suggests that the same lesion, syphilitic inflammation about the cavernous sinus, was also in these the cause, and lays stress on the fact that the sixth nerve being involved the latest and to the least extent, and also the involvement of the ophthalmic division of the fifth nerve, shown by severe frontal pain, pointed to this view of the pathology rather than to central nuclear degeneration. In another case of ophthalmo-plegia interna with ptosis, probably the disease had a cerebral origin.

The Council of University College, London, has appointed Dr. John Williams, Professor of Midwifery, Dr. H. Charlton Bastian, Professor of Medicine, and Dr. L. R. Gowers, F. R. S., a Professor of Clinical Medicine. These gentlemen will enter upon their duties at once, their appointment has given unqualified satisfaction.

The Metropolitan Board of Works has decided to supply sulphurous acid for the deodorization of sewer gas, whenever any complaint of the ventilating shafts of the board's sewers are received, and also that the precipitation of 9,000,000 gallons of sewage daily at the Crossness pumping station should be continued for the present, and the pressing of the sewage be discontinued. During the recent hot weather the Thames below London has been almost unbearable.

The graduates of the University of London are raising a subscription to enable them to erect a jubilee statue of the Queen; upward of £500 was suscribed during the first few weeks.

LONDON, July, 1887.

PARIS LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

An epidemic lately broke out in the Departments of Vienne, Haute-Vienne, Indre, Charente, and of Cher, which are situated about the center of France, nearing the western coast, which at first rather embarrassed the medical men of those provinces, but they soon learned that the malady with which they had to deal was an idiopathic miliary fever, or, as it is commonly termed, the sweating sickness. The contagious or infectious nature of the malady has been questioned, but nothing positive had been arrived at, as certain authors have responded in the negative, and declared that they had not met a physician or patient who could have been suspected of having transported the affection from one place to another. The disease is characterized by a profuse sweat, and an eruption of small miliary vesicles, and is of very rare occurrence in this country. The epidemic at first presented rather a bad character when the patients showed the worst symptoms of malignant fever, accompanied with profound depression, violent delirium, syncope, epistaxis, and intestinal hemorrhage. A great number of intermediate forms took place between the above and the very mild cases which occurred later on. Another feature of the malady had been noticed: in men the eruption in the form of red spots, with vesicles, showed itself on the fourth day, whereas in women it appeared only on the sixth day, when vesicles, without redness of the skin, were observed. The cause of the epidemic remains a mystery, but under the impression that the malady is of the nature of other infectious maladies, a commission, presided over by Professor Brouardel, from Paris, after having inspected the infected communes, enforced, through the local sanitary authorities, disinfection by means of sulphurous and carbolic acid, which the peasants strongly objected to, as they dreaded the damage which the acids might inflict on their furniture. They preferred the expectant mode of treatment, which the French generally adopt in certain obscure or undefined cases, and administered the time-honored infusion of lime-tree blossoms, closed their windows, and piled eider-down quilting and blankets over their bodies, notwithstanding the intense heat of the weather, and the fetor developed by the practice. According to the official reports from the Prefects of the infected departments to the Minister of the Interior, the epidemic is evidently on the decline. The symptoms manifested by the new cases are less alarming, and the deaths fewer in number; but it has been noticed that when the malady breaks out in a commune, until then exempted, the first patients are almost always seriously affected. The total number of cases which have occurred since the outbreak to this date, that is within three weeks, are 3,000, and the number of deaths have exceeded 400.

The treatment of syphilis has been and is still discussed at the learned societies of Paris. That mercury and the iodide of potassium are the two specifics for the disease is admitted by all syphilographers of the present day, but they are divided as to the mode of administration of mercury. On this point they are nearly equally divided, some preferring the external application of the mercury to its introduction into the stomach. The two external methods chiefly recognized and practiced are by frictions and subcutaneous injections, but the adversaries of these two methods, particularly that by hypodermic injections, say that they have more inconveniences than advantages, and the patients are exposed to more dangers than by the gastric method, and as Dr. Mauriac, a well-known syphilographer, remarked that they have not even the privilege of preventing the consecutive accidents which take place, in spite of treatment, during the secondary period of the disease. At a recent meeting of the Société Médicale des Hôpitaux, Dr. Besnier, another eminent syphilographer and dermatologist, stated that among the accidents at a distance attributable to hypodermic injections are lumbo-dorsal and cruro-sciatic pains. Stomatitis and mercurial enterorrhea (the latter too often passed over in silence) do not appear to be much more frequent than with the other methods. He drew attention to certain obscure cephalics and melalgics which several patients have experienced, and of which the treatment is more responsible than the malady. He related a case of meningeal syphilis which occurred twenty-one days after the commencement of the treatment by hypodermic injections, and he asks whether these are absolutely irresponsible of the precocity of this localization of the malady. Dr. Besnier raises his voice against the romantic theory which gave rise to the institution of the method of Scarenzio. It was thought that mercury introduced into the system in the form of calomel, which is supposed to undergo only very slowly by contact with the chlorides of our secretions the perchloruration which makes it pass to the state of soluble sublimate, would impregnate the organism in a continued and prolonged manner. But, as the author remarks, the slightest reflection would suffice to show that this reasoning is simply chimerical. The forty centigrams of the calomel of each injection produced, at the most, twenty-three centigrams of sublimate, the surplus remains in a state of metallic mercury, so that on calculation being made, the quantity of the bichloride of mercury injected per day, which may act on fifty kilograms of the tissues of the body, is not more than one milligram. How, then, can it be admitted that a dose so infinitesimal could suffice to prevent the incessant impregnation into the system of the syphilitic germ. The same author remarks that even the statistics showing the advantages of the hypodermic method are erroneous, as patients who had been treated by this method in the hospitals, having left temporarily relieved of syphilitic accidents, never returned, and were consequently considered cured. In his own hospital experience, Dr. Besnier discovered that his ward was getting empty, as the syphilitic patients preferred going to the other wards where the ancient method was practiced.

Dr. Fano, a well-known oculist, in his *Journal d'Oculistique*, makes the following remarks apropos of the above subject: "In principle I do not see what advantage a subcutaneous injection in the dorsal region, of one centigram of corrosive sublimate, can have over the administration in the interior of the same dose of this substance. If you practice the subcutaneous injection of the drug, it will be absorbed from the cellular tissue by the venous system, and then conveyed into the general circulation, whence it will be transmitted by the arterial system to all the parts of the economy, and even to the eye. If you administer the drug by the stomach, the absorption and the ulterior dissemination in the divers parts of the body will be accomplished in the same way. The difference, however, is that the first mode of introduction of the drug is accompanied by pains inherent to subcutaneous injections, the second mode is exempt from pain."

Dr. Diday, of Lyons, on a recent visit to Paris, delivered a very interesting lecture at the Hôpital Saint-Louis on the theory of hereditary syphilis. For this eminent syphilographer, hereditary infection takes place through the medium of the ovulum, which, after having been penetrated by the spermatozoids from a generator in a condition to transmit syphilis, infects, in the first place, the mother. Later on, about the twenty-fifth day after fecundation, the disease is transmitted to the ovum by the vascular connections which are established at this period between the mother and the product. In admitting the justness of this theory, it follows that every woman exposed to a fecundation supposed to be infectant should be treated soon after the first connections, and before the time that the ovum might be contaminated by the placental circulation.

At the last annual meeting of the French Temperance Society, the president pronounced a very interesting discourse on the abuse of alcoholic liquors, in which he set forth that among the condemned, aged less than twenty years, there were sixty-three per cent of persons addicted to drink, and, among old offenders, seventy-eight per cent.

Owing to the abusive practice of hypnotism in public theaters, the municipal council of Bordeaux have interdicted such performances, as several accidents have occurred among hypnotized subjects.

PARIS, July 8, 1887.

Translations.

CONTRIBUTION TO THE STUDY OF THE RELATIONS BETWEEN DISEASES OF THE KIDNEY AND AFFECTIONS OF THE EYE.—Fürst, of Berlin, believes (Berlin *Klin. Wochenschrift*) that the retinitis of Bright's disease appears most frequently in the stage of contraction of the kidney; in chronic parenchymatous nephritis with marked albuminuria and moderate dropsy; even when the disease has lasted for years, retinitis is a great rarity. In a woman pregnant for the second time, the author observed Bright's disease with great visual disturbance develop in the last half of her pregnancy; after delivery, the Bright's disease disappeared, but the visual disturbance remained. In her third pregnancy the kidney affection returned and the woman became blind; the nephritis did not disappear subsequently, and the patient died from anemia in the beginning of her fourth pregnancy.

Uremic amaurosis occurs more often when visual disturbance has up to this time been absent and the retina normal than when retinitis of Bright's disease is already present; the amaurosis following scarlatinal nephritis offers a perfectly good prognosis.*

NEW CONTRIBUTIONS TO THE QUESTION OF ERYTHROPSIA.—The author (O. Purtscher, *archf. Augenheilk*, xvii, Bd. 3 H.), who has been occupied for some time with the question of red-sight, has lately published six very interesting cases of erythropsia, of which four were aphakic and two possessed of normal lenses. The fourth and fifth patients were specially remarkable; whenever they came from the open air into a closed room green-sight took the place of red, that is, the complementary color. The author investigates the etiology of erythropsia, and finds dazzling always the direct exciting cause; this may be induced by laying aside dark glasses which have previously been worn, or by exposure to snow or by a large coloboma and so on.

The reason why the eye is so easily irritated is perhaps to be found in the fact that it has been blind for years and is now restored to sight. The part of the two visual spheres belonging to that eye must then suffer an excitation to which it has been unaccustomed, and this easily leads to overirritation; the eye responds by red sight in the field of vision.*

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*Translated by S. G. Dabney, M. D.

A CONTRIBUTION TO OCULAR THERAPEUTICS.—The author (Wicher Kiewicz, *Klin. Monatsblätter f. Augenheilk*) recommends a powder of one part tannic acid and three parts finely triturated boracic acid as very serviceable in different affections of the conjunctiva, especially in trachoma. It should be sprinkled on the mucous membrane of the lids once or twice daily with a fine brush and then rubbed in with a slight pressure of the finger. Wicher Kiewicz finds that trachoma so treated lasts only as many weeks as by former methods it lasted months. (The reviewer can confirm this so far as to say that the powder used alternately with copper and caustic has been found of great service.)*

THE *St. Petersburgher Medizinische Wochenschift*, of the 2d of July of this year, contains the following: "Lately several cases of death from hydrophobia have been reported of persons who had subjected themselves in Paris to Pasteur's preventive vaccination some days after receiving the bite. In those persons who had been bitten by a mad dog in October of the preceding year, and who were soon afterward vaccinated in Pasteur's institute, the hydrophobia did not appear for six months, the rest died a short time after the protective vaccination." Facts of this kind are more eloquent than the most learned theoretical and abstruse dissertations.*

TREATMENT OF TERTIARY SYPHILIS.—(Mauriac). The following views of the treatment of syphilis are urged by Mauriac:

1. There are two specifics for syphilis, viz., iodine and mercury. Both possess the pronounced property of healing existing manifestations. Their prophylactic action, on the contrary, is greatly less.

2. Treatment, in the absence of active manifestation, should never be directed against the diathesis itself.

3. In the pauses of symptom manifestation the treatment should also cease.

4. Not the diathesis, but the symptoms themselves give the indications for treatment. Mauriac recommends iodine for all tertiary symptoms for extensive phagedenic primary affections as well as for all disturbances of the general health in the secondary period. The longer the diathesis persists the more pressing is the demand for the use of mercury and the iodide of potassium.—*Wiener Med. Wochensch.*

THE TOXICITY OF PATHOLOGICAL NON-FEBRILE URINE.—M. N. Feltz, on the 27th of June, communicated to the Academy of Sciences the results of researches made by him on the toxicity of pathological non-febrile urine. The urine of glycosuric patients, so long as they are not cachectic, is not more poisonous than normal urine. On the contrary, bilious urine due to organic disease of the kidney, albuminous urine due to grave renal lesions, and urine discharged by individuals suffering from cancerous cachexia or serious anemia, is much more toxic than normal urine. This is not always due to an addition of non-noxious principles, but solely to an increase of the noxious principles of physiological urine.

CONTRIBUTIONS TO THE PHYSIOLOGY OF MUSCLES. — Dr. A. Rollet, in the Imperial Academy of Vienna, has reported some investigations upon the action and peculiarities of the quick- and the slow-acting striped muscles.

The quick-acting muscles, which exhibited spasms of great energy, were rapidly exhausted through the power of great activity possessed by them. They possess also the power of recovering from the consequences of the exhaustion during rest in a comparatively short time.

The slow-acting muscles, whose spastic action possesses a lower character of energy, nevertheless gradually attain a high degree of capacity of execution in spite of their more limited activity, and are only gradually exhausted.

The slow muscles reached considerable degree of tetanic contraction through the accumulation of a great number of separate spastic activities, and present a marked duration of the tetanic state

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*Translated by S. G. Dabney, M. D

The agile muscles quickly reach the highest degree of tetanic action through a single spastic contraction or a small number of such, in which, however, they continue only a comparatively short space of time.—*Deutsche Med. Zeit.*

New Treatment of Cholera.—In a recent work Dr. Duboué offers some original views on the treatment of Asiatic cholera. Having observed that tanners never suffer from cholera, he proposes as a prophylactic measure the employment of tannin within and without. Internally he favors 0.60 centigr. of tannin per day for a man, and 0.40 for a woman. Against the premonitory diarrhea he prescribes also tannin associated or not with opium. The most curious part of the therapeutics advocated by the author is that which relates to the algid period, M. Duboué. to inject by the trachea a certain quantity of water, which will be absorbed by the lungs and replace the water lost by the organism. He bases his views on experiments as made on animals, and has had Collin to construct a series of instruments suitable for carrying out his process. For the period of reaction the author prescribes sulphate of quinine, bleeding, cold water, carbolic acid, and creosote—*Progrès Médical.*

Abstracts and Selections.

The Pupil in its Semeiological Aspects. In a very interesting paper by Macewen, in the American Journal of the Medical Sciences for July, 1887, the following conclusions are presented:

(*a*) 1. When the function of the brain is in abeyance, the pupils are in a state of stabile mydriasis.

2. This may arise either from temporary suspension or from abolition of function.

3. Temporary suspension is illustrated by shock, and the effect of some poisons; while the abolition of function is exemplified by extensive laceration and compression of the brain.

(*b*) 4. When the function of the brain is interfered with by conditions usually included under the term "irritation," the pupils are in a state of myosis; sometimes labile, but generally stabile myosis.

5. This "irritation" or interruption of function may be seen during certain degrees of cerebral anemia produced experimentally, and not as a pathological result, certain amounts of brain pressure and certain stages of intracranial inflammation.

6. These are illustrated in persons who have suddenly lost a considerable quantity of blood (about a fifth of the whole); in the growth of of intracranial tumors, and the formation of sanguinolent serous and purulent effusions, when the degree of pressure may be denominated as "medium," and at certain periods of meningitis and encephalitis.

(*c*) 7. The same pathological factors which cause myosis may also cause mydriasis, the degree in which these factors are present being the determining point between the former and the latter, and not *merely* the particular *locus* in the brain.

8. It is well illustrated by cases where the hemorrhage is repeated, and is finally pushed to syncope; in intracranial pressure, which is gradually increased until it becomes great, such as arises from tumors, blood-clots, and inflammatory products.

(*d*) 9. When the function of one half of the cerebrum is placed in abeyance by a superficial or cortical lesion, the pupil on the same side as the lesion is in a stabile mydriasis.

10. This is well illustrated in cases of intracranial sanguinolent effusion consequent on injury. (See list of cases.)

(*e*) 11. When the function of one half of the cerebrum is interfered with by some source of cortical irritation, the pupil on the corresponding side to the lesion is in a state of myosis.

12. This is illustrated by traumatic and pathological lesions affecting the cortex of the cerebrum.

(*f*) 13. Hemorrhage into the pons Varolii, when small, causes strongly contracted pupils; but when it is more extensive, involving the gray matter beneath the aqueduct of Sylvius, a state of stabile mydriasis is induced.

14. Effusions into the lateral ventricles, when small, produce contraction of the pupils, but when the effusion is great stabile mydriasis ensues.

15. Inequality of the pupils indicate a unilateral lesion or lesions.

16. When the lesion is cortical and unilateral the pupillary manifestations are on the corresponding side. When the basal nerves are affected unilaterally the pupillary effect is manifested on the same side as the lesion. When the lesion is unilateral and affects the function of the white fibers of the cerebrum the opposite pupil is generally affected. When the basal ganglia are implicated unilaterally the pupil is sometimes affected on the same side as the lesion, occasionally on the other side.

In a case of cholesteatoma and in another of glioma of the right optic thalamus, dilatation of the left pupil was found. (Ross, vol. ii, p. 572.)

In lesions of the cerebral peduncles the pupil is affected on the same side as the lesion.

Lesions in the corpora quadrigemina affect both pupils, irritation[*] causing contraction, destruction causing dilatation and immobility.

Section or destruction of one optic tract causes dilatation of the opposite pupil and blindness of the opposite eye.

17. Irritation of the cord, especially the ciliospinal axis, produces dilatation of the pupils, while destruction of the cord causes contraction. These effects are generally seen in both pupils, though, experimentally at least, they may be confined to the same side as the lesion.

18. The pupils are affected in the same way by lesions of the sympathetic, though in unilateral lesions it is only the pupil on the same side as the lesion which is affected.

19. Speaking generally, when myosis is due to a cerebral cause, it indicates the earlier stages of various affections; when due to a spinal lesion it points to a most serious paralysis, often to the destruction of the part. When mydriasis arises from a cerebral lesion it is generally present in large amount; when due to a a spinal affection it indicates irritation of the part.

Myosis occurs under the following conditions:

1. When a bright light acts upon the retina.
2. Accommodation for a near object.
3. Rotation of the eyeball inward.
4. Local irritation or painful affections of the eyeball.
5. Irritation of the oculo-motor nerve.
6. Paralysis of sympathetic roots of lenticular ganglion or trunk of sympathetic in the neck. In paralysis of the fifth there is myosis and inflammation passing on to destruction of the eyeball.
7. Paralysis of the cilio-spinal region of spinal cord. All affections which destroy the cervical spinal marrow and intercept its conductibility produce congestion of the face and contraction of the pupils. In neurosis which suspends or diminishes the tone of the sympathetic or spinal axis.
8. Encephalic congestion, such as obstacle to return of blood in jugulars, venous congestion due to cardiac causes, active hyperemia, plethora, fevers, pneumonia, hepatitis, etc; when animal is suspended by the heels; in early stages of meningitis and encephalitis; in acute mania with marked activity of the cerebral circulation; in chronic mania pupils are variable, when contracted are said to indicate supervention of paralytic dementia.
9. During sleep: some believe this to be due to the congestion of the cerebral vessels and those of the iris (Mosso); others, to the inward rotation of the eyeball.
10. In the early stages of cerebral tumor.
11. In small hemorrhages into the cerebellum. In irritation of the cerebellum, contraction of the pupil on same side as lesion ensues.
12. Electrical stimulation of the angular gyrus frequently causes contraction of the pupil.
13. During forced expiration, when the eye is at the same time passive. Also generally seen during the period of apnea in Cheyne-Stokes respiration.
14. Convulsions arising from meningo-encephalitis are said to be accompanied by myosis, while in convulsions due to epilepsy and in epileptiform fits they are usually accompanied by mydriasis.
15. When the eye contracts on accommodation to a near object, yet does not contract to light, this indicates a lesion situated between the corpora quadrigemina and the oculo-motorius. This affection is known as the Argyle-Robertson symptom. It is seen in locomotor ataxia, and occurs in the progressive paralysis of the insane.
16. During uræmic coma.
17. Myotics; physostigmine, nicotine, pilocarpine, morphine, muscarine.

Mydriasis occurs under the following conditions:

1. In darkness or in subdued light.
2. Accommodation for distant objects.
3. Rotation of the eyeball outward.
4. In forced movements discharged from the medulla; vomiting, swallowing, chewing, forced respiration.
5. Paralysis of the oculomotor (accompanied or not by immobility of eyeball, external strabismus, diplopia, etc.)
6. Destruction of the optic nerve; amaurosis. When unilateral, associated movements continue.
7. Irritation of sympathetic; powerful impressions on sensory nerves; strong moral emotions, mental pain, grief, fear; neuralgia of the fifth nerve.
8. Irritation of the spinal cord, especially cilio-spinal region.
9. Encephalic anemia: In all cases where there is reflex contraction of the vessels of the head; when loss of blood from the body is excessive; obstruction of the carotid arteries: in thrombosis of brain sinuses; dilatation of mes-

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[*] Unilateral electrical stimulation causes dilatation of both pupils, the opposite one becoming first dilated. Ferrier explains this as the result of irritation of a sensory structure, in this case acting through the medium of the anterior roots of the second dorsal nerves which ascend in the cervical sympathetic.

enteric vessels when extreme; syncope, intense cold, rigors; dyscrasias of the blood, convalescence, cachectic conditions; asphyxia, epilepsy, in certain stages of these affections.

10. Pressure of cerebrum when great in amount, as from hemorrhage, neoplasms, etc. In the last stages of meningo-encephalitis.

11. In cerebral softening. In acute dementia (edema of cortex cerebri) observers state that the pupils are invariably dilated. (Hutchinson.)

12. In idiots the pupils are generally dilated.

13. During deep inspiration, generally in respiratory period of Cheyne-Stokes breathing.

14. Hemorrhage into centrum ovale and into cerebral peduncles.

15. Ferrier produced dilatation of opposite pupil by destructive lesion of the optic tract in the thalamus, indicative of rupture of the centripetal fibers to the irido-motor nucleus in the floor of the Sylvian aqueduct.

16. In hydrophobia there is mydriasis.

17. Mydriatics: atropine, homatropine, duboisine, daturine, hyoscyamine. Curare injected subcutaneously in animals (five to ten centigrams) induces in one or two hours complete paralysis of the third nerve.

The effect on the pupil of local conditions of the eyeball:

1. Hyperemia of the iris produces contraction of the pupil which darkness scarcely diminishes.

2. Presbyopia and hypermetropia cause contraction of the pupils in cases where continuous and excessive strain for near accommodation has been long continued, and has produced asthenopia.

3. Pupillary atresia, consequent upon chronic irritation with posterior synechia, producing contraction of the pupil.

4. In synechia total dilatation is impossible, the iris only dilating where free, hence the pupil is irregular. If the synechia is annular, the pupil is both contracted and immobile.

5. In microria there is a congenital state of extreme contraction.

6. In glaucoma the pupil is dilated, contracting little or not at all to the action of calabar bean.

7. In coloboma, both in the congenital form and after iridectomy, there are irregularity and immobility of the pupil.

8. In idiopathic mydriasis there is little contraction to the action of light or to myotics.

9. In certain cases of amblyopia and amaurosis there is dilatation of the pupil.

10. In hippus pupilla there are alternate contraction and dilatation often accompanied by nystagmus.

11. Inequality of the pupils exists in some who have different degrees of refraction in the two eyes, one being emmetropic and the other myopic.

SIEGESBECKIA ORIENTALIS FOR RINGWORM. Dr. J. Hutchison of Glasgow writes (British Medical Journal): *Siegesbackia orientalis* is a shrub, the green parts of which have quite a reputation in the Mauritius. For internal administration a syrup is prepared by pounding the green plant, adding sugar, and straining. This syrup is considered a powerful alterative, and is given in syphilis, gout, scurvy, scrofula, etc. For external use a poultice is made of the bruised leaves, and applied to gangrenous and sloughing sores with marked healing effect.

The plant has been introduced into England and placed within the reach of medical men here.

I have used it in fifteen cases of ringworm; of these, eight were cases of tinea circinata, four of tinea sycosis, two of tinea tonsurans, and one of tinea versicolor. The site of the eight cases of tinea circinata was in six of them upon the neck, and in two upon the calf of the leg. None of the patients called upon me till the disease was well developed, when the red, raised, circular, bounding edge and the pale central area, with its branny desquamation, left little doubt of the diagnosis. The four patients who were afflicted with tinea sycosis all blamed a "foul shave" for their ailment. In all of them the disease was upon the chin, and presented the characteristic fig-like appearance. The two cases of tinea tonsurans showed the roundness of the diseased patches, the scaly eruption, and the brittleness of the hairs peculiar to that form of the trouble. The one case of tinea versicolor was also typical.

My prescription in all of them was the same, namely, equal parts of tincture of siegesbeckia and glycerine, and this I ordered to be well rubbed into the affected area night and morning. The drug appears to act both as a stimulant and a parasiticide, and the method of cure was for the diseased patch to become broken up into a number of smaller patches, with sound skin intervening. These smaller patches became again broken up till they disappeared altogether, and in their place was left a red blush, as if the part had been struck a smart tap with a cane. The redness, however, only remained for a day or two. The two cases of tinea tonsurans were the most stubborn to give way, but even in their cases more frequent applications, and continuing the treatment over a longer period, brought about the result desired, and that, too, without resorting to epilation.

EBERTH'S RODS IN TYPHOID STOOLS.—In the *Vratch* Dr. G. O. Shpolansky, of the Odessa Town Hospital, writes that he and Dr. N. A. Stroganoff, prosector of the same hospital, have examined bacterioscopically stools in ninety-six cases of enteric fever, with the object of solving the following two questions of paramount practical importance: (1) Whether Eberth's microbes are present in all cases of the disease or not? and (2) whether the microbes are still present in the stools of convalescent patients? The main outcome of their researches may be summarized thus: The typhoid bacilli were found in ninety of the ninety-six cases. Of those examined, eighty-eight recovered and eight died. In one of the latter no bacilli could be detected in the stools during life. In one of three convalescent patients examined no bacilli were found after the temperature had finally returned to the normal range. In the remaining two the microbes were still daily discovered for nine and fifteen days respectively after the defervescence. In view of the facts stated under the first head, a bacterioscopic examination of the stools should be undertaken in every case where any suspicion as to typhoid fever may arise; and in consequence of those adduced under the second, the stools of the patients recovering from enteric fever can not be considered innocuous for at least fifteen days after the defervescence.—*British Medical Journal.*

THE CARE OF MILK.—Prof. Vaughan, in the Medical News of June, 18, 1887, presents the following practical points in regard to the relation of milk deterioration to cholera infantum:

Preventive measures will consist for the most part in attention to diet, and especially to milk. I have drawn up the following rules concerning the care of milk:

1. The cow should be healthy, and the milk of any animal which seems indisposed should not be mixed with that from the perfectly healthy animals.

2. Cows must not be fed upon swill, or the refuse of breweries, or glucose factories, or any other fermented food.

3. Cows must not be allowed to drink stagnant water; but must have free access to pure, fresh water.

4. Cows must not be heated or worried before being milked.

5. The pasture must be free from noxious weeds, and the barn and yard must be kept clean.

6. The udders should be washed, if at all dirty, before the milking.

7. The milk must be at once thoroughly cooled. This is best done by placing the milk can in a tank of cold spring water or ice-water, the water being the same depth as the milk in the can. It would be well if the water in the tank could be kept flowing; indeed, this will be necessary, unless ice-water is used. The tank should be thoroughly cleaned every day, to prevent bad odors. The can should remain uncovered during the cooling, and the milk should be gently stirred. The temperature should be reduced to 60° F. within an hour. The can should remain in the cold water until ready for delivery.

8. In the summer, when ready for delivery, the top should be placed on the can and a cloth wet in cold water should be spread over the can, or refrigerator cans may be used. At no season should the milk be frozen; but no buyer should receive milk which has a temperature higher than 65° F.

9. After the milk has been received by the consumer, it should be kept in a perfectly clean place free from dust, at a temperature not exceeding 60° F. Milk should not be allowed to stand uncovered, even for a short time, in sleeping or living rooms. In many of the better houses in the country and villages, and occasionally in the cities, the drain from the refrigerator leads into a cesspool or kitchen-drain; this is highly dangerous; there should be no connection between the refrigerator and any receptacle of filth.

10. The only vessels in which milk should be kept are tin, glass, or porcelain. After using the vessel it should be scalded, and then, if possible, exposed to the air.

ACTINOMYCOSIS IN A GARDENER.—A case of actinomycosis occurring in the human subject is reported by Dr. Hanken, of Dortrecht, which appears to belong to what Dr. Israel classes as cases of migration of fungi through the mouth and pharynx. The patient was a gardener, aged thirty-four, who had nothing to do with the care of cattle. He applied for advice on account of long-standing dyspepsia. It was observed that there were four tumors on the lower jaw, situated between the left mental foramen and the angle of the jaw. They were movable and somewhat elastic on palpation. The teeth were fairly healthy, with the exception of the four second molars, all of which were carious; the roots, however, could be palpated without causing pain. The diagnosis appeared to lie between gummata and cold cutaneous abscesses due to irritation from carious teeth in a tuberculous subject. No signs or history of syphilis could be made out, so it was decided to draw the two diseased molars on the left side, open the tumors and scrape them out with a sharp spoon. The contents were found to consist of a viscous chocolate-colored fluid, in which opalescent granules, the size of a pin's head, were suspended; these proved, on microscopic examination, to be actinomycetes.—*British Medical Journal.*

Juvenile Intermittent Albuminuria.—Considerable interest attaches to cases of cyclical albuminuria, for their pathology is unknown, and, perhaps, is different in different cases. The causation of mere intermittency of symptoms generally has not received adequate attention. The Lancet gives the facts collected by M. Teissier in a fresh series of ten cases of cyclical albuminuria. He lays stress on the following features: A separation of oily matter on the urine, and the presence in it of brilliant bluish or metallic looking spangles; the absence of true casts, though cylindroids, possibly of mucus, and sometimes drops of fat, may be detected with the microscope; the slightness of the subjective symptoms, which may consist of mere vague feelings of *malaise*, of pain in the back, of weakness, or of pains in the limbs. Neuralgic troubles are rare. There is a great nervous excitability or impressionability. Physical examination has never revealed the "*bruit de galop*." The slowness of arterial tension, which is calculated to be equal to a column of mercury sixteen to seventeen centimeters high, is important as an item in the differential diagnosis of cyclical albuminuria from interstitial nephritis. Dilatation of the stomach was observed in three cases. Three patients had had eczema or urticaria. Neither edema nor "dead fingers" was noted. Speaking generally, the aspect of the patients is one of good health. The complaint, if such it can be called, is commonly curable; but slight relapses may recur under the influence of fatigue or violent impressions. The age that is most liable to the affection is ten years from puberty onward; males suffer more than females. Violent exercise and excessive emotional excitement are direct causes. Teissier does not accept the mechanical theory of Bar, nor the theory of disturbance of the glomerular circulation of Magnin. His own view, propounded two years ago at Grenoble, he now believes to be insufficient to explain all the phenomena. A slowing of the combustion of albumens will not explain the presence of fatty matters, or the increase of urea in the urine. His present position is to regard the malady as due to overaction of the liver, which is the factor for urea, uric acid, and fatty matters. In treatment, the importance of hygiene is very great. These patients are, perhaps, predestined to become gouty. Shampooing, plenty of fresh air, prohibition of alcohol and white wines, and moderate exercise are to be prescribed for these young men. Arsenic, inhalations of oxygen, cold baths, bromides and hydrotherapy, tannin, benzoate of soda, etc., are recommended, but especially sweet spirits of niter, twelve to fifteen drops a day (alcool nitrique). Milk, eggs, and ham may be eaten, but not fish; thermal waters are good.—*Boston Medical and Surgical Journal.*

Recent Contributions to Gastric Pathology.—One of the points of great practical interest is that first made by Van der Welden, viz., that in cancer of the pylorus free hydrochloric acid is not secreted in the stomach. Several observers have given their support to this view. American physicians who have tried to put it to a test have, so far as we can learn, come to the conclusion that the methods of detecting HCl are too untrustworthy to make the method of value.

The presence of free acid in the stomach is ordinarily determined by adding to the suspected fluid a saturated alcoholic solution of tropeolin. This turns to a deep brownish-red with free acids, and to a light yellow with acid salts. To determine whether the free acid is lactic or hydrochloric, a weak solution of methyl-violet is used, which turns to an intense blue with free HCl. The presence of lactic acid is determined by adding a mixture of carbolic acid and ferric chloride diluted with water to an amethyst-blue tint. This turns to a greenish yellow with lactic acid.

Cahn and Mering, in contending against the trustworthiness of these tests, says (*Deutsches Arch. für Klin. Med.* xxxix, p. 233) that not only neutral chloride solutions, but magnesia-mixture, may produce a blue with this test; so may certain neutralized fluids from the stomach; also dissolved peptones, as before mentioned, amido-acids, and, in a less degree, mucin. They also state that lactic and fatty acids are not formed when a meat diet is given, but only free HCl (*Zeitschr. für Klin. Med.* Bd. xii. H. 1, 2), whereas Ewald insists that lactates are formed as usual, while he agrees that the fatty acids are absent in such diet. The above authors also find that free HCl is not absent in cancer of the stomach.

Dr. P. Zeiwfl tries in another way to establish a method of assisting in the diagnosis of gastric cancer. This has already been described in these columns.

He ascertains the time of absorption of iodide of potassium (three grains) by testing either the saliva or urine. Its presence is usually to be shown within from eight and a half to seventeen minutes. A longer time than twenty minutes would accordingly indicate either cancer or simple dilatation of the stomach, and the latter diagnosis can be excluded by the sound or by gaseous distension.

Jaworski and Glusinsky have made some experiments, chiefly remarkable for the absurd conclusions to which they are led by them. They claim that the stomach is not a chemical, but only a mechanical digestive organ. Dr. Jaworski, and, more especially, Dr. Riegel (*Zeitsch. f. Klin. Med.* 1886, xi. H. 1), have written elaborately upon the subject of "*hypersecretio acida*," and Riegel would apparently make the increased or diminished secretion of hydrochloric acid the center of a large part of gastric pathology. He used Leube's method of examining the contents of the stomach a certain time after a meal; chemical tests were also instituted to determine the power and strength of pepsine, and the amount and kind of acidity. He reports four cases of typical "*hypersecretio acida*," characterized by slow digestion, gaseous distension, pyrosis, and thirst.

Riegel distinguishes four groups of gastric disorders in which acidity is abnormal:

1. There is normal acidity (possibly, however, with severe derangement).
2. Free HCl and peptic power have quite disappeared.
3. Free HCl is present, but organic acids preponderate.
4 The peptic secretion is increased.

In cancer no free HCl was found, and no pepsine, but Riegel differs from Ewald in ascribing the absence of free HCl to its neutralization by the cancerous juices. Each author has observed a case of duodenal cancer also with loss of HCl.

Jaworski has just written again on the subject of hyperacidity (*München Klin. Wochenschr.* Nos. 7, 8). This symptom, he insists, accompanies all disorders of the stomach, acute and chronic; but, if the condition persists long, the HCl becomes much lessened, and may entirely disappear. In other words, the "acid catarrh" may pass on to chronic "mucous catarrh," with entire derangement of function. This may occur from various causes, which are placed under two heads, namely, (*a*) spontaneous; (*b*) the use of alkaline drinks. Among the spontaneous causes of diminution, or even cessation, of HCl are the following: (1) Gastric ulcer with hemorrhage. The latter is preceded by great excess of HCl (and Riegel classes it under "*hypersecretio acida*"), which at last leads up to and is temporarily relieved by hemorrhage; but in some cases HCl ultimately ceases to be formed. (2) Dilatation. (3) The prolonged use of alcohol or other irritants (*Wien. Med. Wochenschr.* No. 49, 1886). (4) Old age has a great predisposing influence (*ib.* No. 50). The causes due to the persistent use of alkaline drinks embrace the prolonged use of Carlsbad and similar mineral waters, alkalies generally, and even borax.—*Med. Record.*

A NEW TEST FOR MORPHINE.—A novel and very beautiful test for the presence of small quantities of morphine ($\frac{1}{200}$ gr.) has recently been suggested. To the solution to be tested add a few drops of strong sulphuric acid and about the same quantity of a solution of sulphate of sodium. Heat the mixture in a porcelain capsule, and directly it begins to give off sulphuric vapor cool it suddenly, when it assumes (if morphine be present) an intense violet coloration. If the mixture be further heated, it turns brown, and when cooled, the addition of a few drops of water determines a vivid red coloration, which turns a pale green if more water be added. If at this stage an equal bulk of chloroform be poured into the mixture and well shaken, the chloroform becomes of a bright blue color.—*British Medical Journal.*

GONORRHEA TREATMENT.—J. B. Jones says that, as an injection for urethritis, especially the acute form, there is nothing superior to the following:

Ext. opii	20 gr.;
Glycerinæ	1 fl. oz.;
Zinci sulphatis	6 gr.;
Aquæ destill	5 fl. oz.

M. Sig: Inject every three hours.

As a diuretic where the urine is highly acid and the object is to increase the amount of water:

Potassi acetatis	$\frac{1}{2}$ oz.;
Spts. nitr. dulcis	$\frac{1}{2}$ fl. oz.;
Aquæ camphoræ	15 fl. oz.

M. Sig: One tablespoonful every three hours.

Where the object is to increase the solid constituents of the urine, belladonna is the diuretic *par excellence*. In albuminuria, where we wish to take the stress off of the kidneys, either pilocarpus (which acts through the salivary and sweat glands) or elaterium (which produces free, watery discharges from the bowels) may be used. The two alkaloids of pilocarpus—pilocarpine and jaborine—as we know, have diametrically opposite effects, jaborine having the same action as atropine.

In gonorrhea, after the acute stage has passed, there can be no question as to the utility of balsam copaiba. After discarding it once or twice as useless, I now rely on it to no inconsiderable extent in the subacute stage. While not such an eligible form as the capsules, I prefer the solution known as Lafayette's mixture:

Bals. copaibæ	1 oz.;
Liq. potassii	2 dr.;

Mix thoroughly and add:

Com. spts. lavandulæ	2 fl. oz.;
Spts. nitr. dulcis	1 fl. oz.;
Syrupi acaciæ	4 fl. oz.

M. Sig: Tablespoonful every six hours.

In this formula it is necessary that attention be paid to the spirits of lavender, for if this be made from an old rancid oil, as it often is, the dose will be a nauseous one; but if the lavender be pure, it will cover the taste of the copaiba, and be not unpalatable.

In vesical catarrh an efficient wash for the bladder is:

Acidi carbolici	5 drops;
Ext. pin. canadensis (Kennedy's.)	½ fl. dr.;
Glycerinæ	½ fl. oz.;
Aquæ destillat	1½ fl. oz.

Sig: One dram in eight ounces of water injected into the bladder daily.—*Medical Index.*

Ear-Ache (Peoria Medical Monthly):

Muriate of morphia	5 gr.;
Sulphate of atropia	1 gr.;
Ol. olivæ	1 dr.;
Neutral glycerin	1½ dr.

M. Sig: Drop from three to five drops in the ear, and repeat every hour until relieved from pain, taking care to plug the ear with cotton after applying the medicine.

Resorcin in Eczema.—Dr. H. P. Chase claims to have treated nine cases of eczema with resorcin with only one failure, and this one had failed to carry out instructions. One case had passed the hands of specialists without relief. The drug was used as follows:

Resorcin	2 dr.;
Glycerine	q. s. ad. 2 ozs.

M. Sig: Apply with a camel's-hair pencil morning and evening.—*Ibid.*

The Prevention of Mammary Abscess.—Mr. Miall speaks highly of a method of preventing mammary abscesses. He says that when mammary abscess is on the point of forming, he has frequently seen all the symptoms disappear in a few hours under the influence of fomentations with hot water and carbonate of ammonia. He uses an ounce of the carbonate in a pint of water, and when solution is accomplished, the temperature of the fluid will be hardly too high for fomentation to be commenced with cloths dipped in the liquid. He applies them for from half an hour to two hours, at the same time protecting the nipples. He has often had immediate relief, and seldom requires to make more than three applications. *Weekly Medical Review.*

Santonate of Atropine.—The difficulty that is experienced in preserving solutions of atropine, owing to the formation of mucors which are highly objectionable in ophthalmic practice, has led M. Bourbelon, (*Pharm. Rundschau*) to endeavor to obtain a stable compound. He believes he has accomplished this end in the employment of santonate of atropine, the solution of which produces no irritation when applied to the eye, whilst its power of dilating the pupil is the same as that of atropine sulphate. One drop of solution of atropine santonate containing 1 part in 2,000 of water dilates the pupil in six minutes, and the action is maintained for a period varying from ten to twenty-four hours. Atropine santonate has not been hitherto obtained in a crystalline state. It appears in the form of a white powder which has no hygroscopic properties. It is requisite to observe that the santonate and its solutions ought to be preserved in flasks of yellow glass, in order to avoid the action of light and the formation of photo-santonic acid. It may be borne in mind that a valuable suggestion was made some years ago by Dr. Aquila Smith for the preservation without deterioration of solutions of atropine, which consisted in using as a menstruum the camphor-water of the Pharmacopeia; the only objection to which is that it causes slight smarting when first introduced into the eye. This, however, soon passes off, and has not been attended, in any case hitherto observed, with troublesome consequences.—*London Practitioner.*

Neutral Hydrochloride of Quinine.—M. Clermont (*Bull. Gén. de Thérap.*) agrees with M. Boymond as to the advantages of the basic hydrochloride of quinine, which is soluble in 21.4 times its weight of water, but recommends the neutral hydrochloride as still better fitted for hypodermic use, since it is soluble in its own weight of water and has no caustic action. It may be made either by adding a solution of chloride of barium to a solution of neutral sulphate of quinine, and separating the precipitated sulphate of barium by filtering; or by adding hydrochloric acid to a solution of the basic hydrochloride.

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. IV. SATURDAY, AUGUST 6, 1887. No. 3.

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A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

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PUPILLARY PHENOMENA.

In the American Journal of the Medical Sciences for July, 1887, is a significant paper by Dr. William Macewen, of Glasgow, the concluding part of which we give elsewhere in this number. Those who have given much attention to this interesting and at the same time puzzling question must feel under obligations to Dr. Macewen for his industrious collection of most of the known facts relating to the pupil in its semeiological aspects.

As Dr. Macewen rightly says, few attempts have been made to grasp pupillary manifestations as a whole, and still fewer to reduce the varying phenomena to principles or to discover the laws which they observe.

Dr. Macewen accepts the theory, so ably advocated by Mosso, that radiating fibers are probably wanting in the iris, and that the passive movements of the pupil are regulated by the vascular system of the iris which is in complete harmony with that of the encephalon.

In those conditions inducing general suspension of the cerebral function, a state of ischemia prevails in the brain and iris, producing mydriasis. Myosis, he concludes, may be brought about by a like mechanism acting in an opposite direction. The irritation, setting up congestion of the cerebral and meningeal vessels, leads to congestion of the vessels of the iris, and so produces contraction of the pupil.

We have for many years given this question both thought and study, and while never able to reach any satisfactory conclusion, we have succeeded in discovering principles sufficiently pervasive to serve as threads upon which the various facts of pupillary phenomena might be strung. Our theory was based on the accepted view that there are radiating fibers in the pupils supplied by the sympathetic system of nerves. If, however, Rouget and others are correct in the opinion that there are no radiating fibers in the iris, our theory is reduced to a fancy.

Years ago we had gone as far as Dr. Macewen (and perhaps in the same line) in regard to the effect of different states of the nerve centers on the action of the pupils. Our view was that plus conditions of cerebral nutrition produce contraction of the pupil, and negative conditions produce dilatation. In a large number of cases this is the fact, but the question that still pressed for an answer was "Why?" To meet this it was supposed that in all cases of contraction or dilatation of the pupil depending on the state of cerebral nutrition, the condition in which the pupil was found was due to the different degrees with which the cerebro-spinal and sympathetic nerves respond to nutritive forces. Thus, if there exist progressive increase of nutrition of both the sympathetic and cerebro-spinal systems, the latter responds to it first and keeps in the lead as long as the nutritive action increases. The third nerve will, therefore, exhibit the predominant force and contract the pupil. In progressive denutrition, that is in anemia of the brain, the cerebral nerves also respond first in signs of weakness, while the sympathetic predominates and we have dilatation of the pupil.

The explanation is suggested by the physiological relationship of the cold blooded to the warm-blooded animal; it is, in short, the old race between the tortoise and the hare. With an increasing supply of food the hare will eat more, fatten faster, and run more rapidly; but, on a decreasing supply of food, it will fall off more rapidly, starve quicker, and break down sooner than the tortoise.

When the nutrition of both systems of nerves is normal, then these functions are balanced, and the most favorable condition of the pupil obtains.

If asked, however, how it can be that a tumor will keep a pupil in a state of extreme mydriasis for four or five months, we confess we are puzzled. There are laws governing these things, however, and those of a philosophic turn of mind might not spend their time amiss in attempting to discover them.

Notes and Queries.

Editors American Practitioner and News:

I send you the following clinical notes, with the hope that they may be interesting to your readers:

Cocaine to Relieve Tenesmus.—Miss Mary M., aged twenty-seven years, was suffering with acute dysentery, in which she suffered most intolerable tormina and tenesmus. Opium by enema gave only partial relief, and, causing insomnia and persistent nausea, was badly borne by the patient. Morphine administered hypodermically had the same effect. On account of the patient's idiosyncrasy, I was compelled to abandon the use of opiates absolutely, after having tried it in various forms for several days, the patient, meanwhile, growing rapidly weaker from the drain incident to the frequent bloody stools and almost constant straining.

It was under such circumstances that I thought of the expedient of trying cocaine muriate, which was given per enema in one-grain doses in one ounce of water. The first injection was followed by entire relief of pain and rest from straining, which lasted five hours. The drug was continued thus at stated intervals until the severity of the disease subsided.

I had never seen or heard of cocaine being used for relieving that most distressing symptom, tenesmus, in dysentery, but Prof. William Bailey, of this city, who saw the case with me on the following day, gave his unqualified approval of the treatment. I confidently believe that, by relieving the tenesmus (if indeed it had no other effect), cocaine aided materially in bringing about recovery in what seemed to be an alarming case of acute dysentery.

Antipyrin in Sun-stroke.—During the recent "heated term," in which there were in this city quite a number of cases of "sun-stroke," or more properly, thermic fever, it fell to my lot to treat several patients so afflicted. In each case I used cold applications to the head and trunk externally, and gave internally from five to ten grains of antipyrin, which in each case promptly reduced the temperature. In one case—a tall, slender man, sixty years old—the temperature was 105°, and the skin dry and hot, the patient being delirious. Within three hours after giving ten grains of antipyrin, the temperature was reduced to 100°, the skin became moist and pliant, and the intellect perfectly clear. R. B. GILBERT, M. D.

Louisville, July 30, 1887.

Editors American Practitioner and News:

Remarkable Case of Fasting from Paralysis of Muscles of Deglutition—Death on the Ninetieth Day.—Through the courtesy of my friend, Dr. D. H. Parker, of Medon, Tenn., I was permitted to make examination of a case that, in many of its features, is without a parallel in this section of the country, if not in the annals of medicine.

The patient had endured the hardships of a soldier's life in the Confederate army during the late war, which so greatly impaired his health, that he never was fully able to regain it. He was always of an exsanguineous aspect, his appearance being decidedly suggestive of pulmonary tuberculosis, though the closest examination did not reveal the signs of that disease during his last illness. Two or three of the patient's sisters and brothers had been victims of consumption. He was about forty-three years of age, unmarried, and of an eccentric disposition. Last February, one year ago, Mr. M. was, about two o'clock in the morning, suddenly stricken with hemiplegia, though some premonitory symptoms had from time to time manifested themselves in the posterior occipital region. The stroke was ushered in with very great pyrexia, the temperature probably going as high as 105° or 106° F.

Since the above-named occurrence the patient has been entirely confined to his room, without any intercourse whatever with the outside world. Again, about four months past or better, about March 1st last, just thirteen months subsequently to the first, a second and a more severe recurrence of the paralysis supervened, this time wholly prostrating the patient, who had partially recovered from the first attack.

The last attack involved the entire alimentary tract. All the co-ordinating powers of the different muscles of that region seemed to have been destroyed; more particularly those of deglutition, which were involved to such an extent as to render the act of swallowing entirely impossible. He could converse freely, but the act of deglutition was wholly out of the question.

The patient believed himself beyond all hope of succor, and refused all medical assistance, though a number of physicians visited him in a friendly way and watched his case.

His temperature at no time was above normal, the skin being moist and cool, pulse surprisingly good, and respirations quick and natural.

At the time I saw the case it had covered a period of fifty-nine days, in which reliable and altogether truthful attendants stated that he had not been known to swallow any thing whatever, not even water, for the period of time corresponding to the fifty-nine days. I found the patient quite cheerful and feeling comfortable, with the exception of a sense of weakness. He was communicative, and seemed indifferent to his severe malady. The temperature was normal, pulse seventy-six and of extraordinary volume, respiration about sixteen to the minute and easy, tongue clean and moist, secretions all suspended; he had not had an action of the bowels for the preceding fifty-nine days. Emaciation was so complete, that on pressing the fingers lightly over the hypogastric region the pulsations of the abdominal aorta could be distinctly felt and counted.

Upon further inquiry, I was informed that a sense of hunger recurred regularly at intervals of twenty-four hours, only to disappear, unsatisfied of course. Thirst was even worse at times, but was to some extent quenched by the patient's holding small ice pellets in the mouth, without swallowing any except perhaps a few drops that might occasionally flow down into the larynx where they caused intense suffering by threatened strangulation. Stricture of the fauces dated from the first of the attack, as did also the want of co-ordination among the muscles of deglutition. The only pain that was noticed was in the left infra-orbital foramen; and no doubt, from the attendant symptoms, it was neuralgic in its character, and had been habitual in the left eye, destroyed some years before.

At this period, owing no doubt to general weakness and a consequent asthenopic condition of the retina of the sound eye, amaurosis developed, and later on became so marked that familiar objects were indistinguishable at any distance.

As regards sleep, the most usual time for it was in the early morning, being rarely indulged in during the night.

No stimulants, either direct or indirect, were used, except tobacco, which the patient was addicted to, chewing on an average four or five cents' worth per day during his entire sickness.

This state of things continued from day to day for a period of ninety days, at which time death occurred.

Ninety days without nourishment of any kind; ninety days and no water, save may be a few drops escaping down through the strictured fauces. Eighty days without any excreta whatever passing from the bowels, at which time it is reported a few ounces of offensive muco-pus were known to pass. At times a few drops of urine were passed, in consequence, perhaps, of the small quantity of water that trickled down the throat, and this was quite seldom indeed. The patient remained rational until about the eightieth day, when he gradually became unconscious, and so remained until death occurred on the ninetieth day.

J. K. P. CALDWELL, M. D.

DENMARK, TENN., June 22, 1887.

Death from Tight Lacing.—A sensational illustration of the fatal effects of tight lacing was afforded last week by the death of a single woman, aged fifty-two, who died quite suddenly in the street. Mr. A. A. Varne, the house surgeon of the Northwest London Hospital, to which institution the lifeless body was taken, stated that the deceased was a woman who laced very tightly, so much so that she could hardly breathe, and it was owing to the impossibility of proper expansion of the lungs that syncope had been produced. Two years ago he had been called to her in the street; she had fallen down and "broken a blood-vessel." Here is a text which popular health lecturers will be able to use effectively, it may be hoped, and—we fear—for many a long day.—*Brit. Med. Journal.*

Missed Diagnosis.—Three young internes of Newark City Hospital have received a very severe lesson. A patient was brought to the hospital comatose. He was thought to be suffering from alcoholism, and he was treated accordingly, being given a douche and strong cutaneous irritation. The patient died, and on autopsy there was found a tumor of the brain. A coroner's jury investigated the case, and the internes were thereupon arrested for manslaughter.—*Med. and Surg. Reporter.*

Melon-root as a Substitute for Ipecac. The *Journal de Pharmacie* says that Torosicviez obtained the emetic principle of melon-root by treating the aqueous extract with alcohol. He calls it melon emetine.

Properties: Brownish hard mass with shining fracture, very deliquescent; its aqueous solution has a slightly sharp, bitter taste; it is indifferent to acids and alkalies; it colors ether. Alcohol dissolves it instantly, and it is precipitated by acetate of lead and by infusion of nut-gall. Solution of ammonia or potassium dissolves it readily.

Maximum dose of melon-root powder, 25 grams. Dose of melon emetine, 9 centigrams. This produces vomiting.

The cultivated plants were used for these experiments. The wild plants are much more active.—*Therapeutic Gazette.*

The Microbe of Rabies.—In the *Vratch*, No. 21, 1887 (British Med. Journal), Drs. Julian Motte and V. Protopopoff, of Prof. S. D. Kostiürin's laboratory, in Kharkov, state that while studying wolf-rabies they have met with a micro-organism which seems to be closely connected with the rabic virus in wolves.

In a series of well-conducted experiments, by means of inoculations through dogs, wolves, and rabbits, and pure culture, in meat broth, they seem to have isolated the pathogenic microbe of rabies. It is described as an "extremely minute, short, and very motile bacillus of a very special kind.

Married.—At Pittsburgh, Pa., on the 26th of July, 1887, by Rev. George Goeltz, at the residence of the bride's parents, Miss Eveline Picczonka, of London, England, to Dr. Edward von Donhoff, Louisville, Ky.

The University of North Carolina has recently conferred the degree of LL.D. on Dr. Hunter McGuire, of Richmond, Va.

SPECIAL NOTICES.

The preparations of Hypophosphites, Coca, Pepsin, etc., made by Messrs. R. A. Robinson & Co., are indorsed by many prominent physicians. We recommend a careful perusal of the advertisement of this well-known manufacturing house. (See advertisement in this issue.)

Atmosphere Purifier.—Under this caption, the following excerpt—probably because of its foreign source, credited to the Berlin Medical Association—is heralded by the medical and popular press as an especially useful air purifier for the sick-room: Take of

Oil rosemary	10.0 parts;
Oil lavender	2.5 parts;
Oil thyme	2.5 parts;
Nitric acid	30.0 parts.

Shake well before using. Saturate a sponge, and place in convenient position for spontaneous evaporation.

Listerine, prepared by the Lambert Pharmacal Company, St. Louis, which we have before had occasion to recommend, is, in our judgment, far better adapted to the purpose. It consists of the essential ethers and oils of thyme, eucalyptus, baptisia, gaultheria, and mentha arvensis, in combination with benzo-boracic acid. The vapor evolved by its use in the sick chamber, by means of saturated cloths sponge, or spray, is actively ozonifying and rapidly oxidizing in its effects on organic matter afloat in the sick-chamber, while, at the same time, it imparts a grateful odor to the atmosphere.—*Sanitarian.*

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. IV. [NEW SERIES.] LOUISVILLE, KY., AUGUST 20, 1887. No. 1

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

THE NATURAL METHOD IN PLASTIC SURGERY.*

BY EDWARD VON DONHOFF, M. S., M. D.

Plastic surgery properly embraces all surgical procedures which have for their immediate object the removal of deformities, of whatsoever nature or location, either by the transplanting and uniting of homologous tissues to supplant distorted areas, or the approximation of the same when unduly separated by accident or disease. It is therefore the highest branch of the art, and should command for its execution the nicest manual tact and clinical judgment. Hence it is deemed expedient on this occasion to inquire into the relative possibilities in this field to-day, as compared with those existing previous to the somewhat empirical introduction of surgical dogmas bearing specially upon influences alleged to modify the repair of tissue-breaches incurred either by the surgeon's knife or accidentally, and to review the contributions in the way of facts which have been added to the chirurgical therapeusis by Listerism, *et omni qui idem faciunt*.

In every scientific avenue allied to medicine men have labored zealously in the interest of the dogmas emphasized twenty years ago by the great Scottsman, with a view to the exact differentiation of disease-breeding germs and the discerning of laws controlling their movements and the prophylaxis against their omnipresence or invasion. Nor has the result—the demonstration of the impracticability of chemical prophylaxis and antisepsis in surgery—proven barren of salutary influences. Of one who has been fully alive to the importance of the work it would be an imposition to ask a rehearing of scientific (?) anecdotes which have passed current with the credulous, while the less obtrusive but essentially indestructible truth has steadily forged its way to reinstatement in the practice of erstwhile clear but temporarily enthused minds.

Now, indeed, are we embarked in the right channel, and the still clinging votary of chemical antiseptic detail—the higher his rank the better—affords but a fittingly elevated position for the most annihilating demonstration of his error.

All honor to Lister, who even in seeking to accomplish a now demonstrated impossibility, ingenuously led surgery to the most important of truths—the inseparableness of cleanliness and success. All honor to his adopted countryman Tait, who, accepting the simple truth, that the presence of wound-debris alone affords an inviting pabulum for its invasion by germal influences, declares that he will, with perfect safety to his patient, fill, if they be furnished him, a properly made and cleaned wound-surface with germs. "*Fort mit dem spray*," said one of Germany's greatest surgeons a half score of years since. Now appears another from the same region, who tells us that if the vaunted iodoform be itself first rendered sterile, he will possibly be induced to use it as an application to wounds.

In America Dr. Wm. Hunt, Senior Surgeon, Pennsylvania Hospital, points the same lessons thus: "It is a question consonant with the question of food; and these micro-organisms appear only as its destined consumers:" cut them off from sustenance and their death is assured. This much, and this alone, compasses the foundation of modern surgical success so far as traumatism is concerned. But another and not readily overcome factor is rife in modifying the prerequisites of success attainable in the local management of wounds; it is the general blood condition of our patient and his nervous susceptibility. Corrupted as the blood may be through an infinite number of unbarrable avenues, it becomes a source of failure otherwise inexplicable. Under such influences a wound, however clean, may become a vitiating center and quickly render local interference well-nigh futile. In this connection the nicest discriminative tact often fails to anticipate the absence of *that "evenly balanced state of physiological blood"* so necessary to good results, and which assuredly forbids the potency of infectious influences in that situation. Hence the difficulty of prognosis, which is rendered greater still by subtle, inscrutable, and baneful nervous influences frequently enough exemplified, and as often not to be accounted for by acceptable data.

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*A paper presented to the Kentucky State Medical Society at Paducah, June 15, 1887.

The literature of shock—primary and secondary—affords rather a museum of curious hypotheses than satisfactory explanation; except that it may at times be a purely nervous influence, nothing is demonstrable in this field. *Effecta sine causa* is no longer a part of philosophy; hence the necessity of admitting the activity of some force, though all unknown in its mode of operation, in the production of these phenomena.

An experiment as yet superseding all others in affording an example of pure nerve influence in shock is the *klopfversuch*. (The extraneous force in this is the blows struck over the solar plexus; various inferences are deduced thence.) The important questions for surgeons are: When and how does a traumatism induce harmful, probable fatal shock: what and whence is the inducing force, and how may it be abridged or counteracted? All answers to these queries are as yet practically inadequate. Even the "time of election" for primary amputations is quite unsettled, though a considerable number of surgeons empirically lean toward the view that under some conditions the degree of shock is lessened by prompt severance from the trunk of bruised nerve tissue.

Thermal influences play an important *rôle* notably in abdominal surgery, and no doubt in all other grave surgical exploits. An apartment for the performance of surgical operations or the administration of anesthetics should have a temperature of not less than eighty or more than one hundred degrees. Many cases of acute fatal termination after abdominal section for ovariotomy, intestinal resection, or the relief of intestinal strangulation, are directly due to insufficient attention to this detail, even when all other indications of success are of a most promising character.

It is not necessary to magnify the importance of attention to the universally requisite preliminary details of cleanliness, since only by such painstaking care has it been possible for such leaders as Tait, Keith, Ferguson, Bantock, Billroth, Morrow, Ashhurst, and many other normal thinkers in the surgical world to demonstrate the ephemeral character of those would-be constrainers of nature, who, in the quaint humor of a certain wit, divide honors with the famous inventor of Aunt Jemima's sticking-plaster, heralded to reproduce, if need be, the amputated portion of Fido's tail from the stump after a single application.

A remarkable pertinacity distinguishes the latter gentlemen casting about for converts to the use of one one-thousandth to one twenty-five thousandth per cent solutions of corrosive sublimate as an all-sufficient armor, nor do they fail to find them—but principally among a class of medical drones, ready to catch at any cure-all method presented, or among the over-credulous who accept without hesitation, or only mild questioning, the pronunciamento of some "Colossus" far away. Such men are wont to look with child-like infatuation for the development of some wondrous potentiality in the decillionth dilutions of Hahnemann or, *ceteris paribus*, from the sprinkling of a wound-surface with an embodied impracticability; they do not, it seems they will not appreciate the simple all-sufficient fact that *natural processes may be fostered and abetted only by natural means, and that nature is either indifferent to or resents all others.*

It is not fair to suggest dishonesty on the part of a great many of the enthusiastic teachers of antiseptic doctrines; it is enough to be able to prove, as has been and is hourly being done, the negative quality of their vaunted *credo*. Surely no one will gainsay the propriety of research and discovery in any field; but precocious magnifying of results is at all times reprehensible, especially when promulgated from the rostrum by those eminently fitted by their honored positions for leading the slothful, the blind follower, and the credulous into mischief, and arming the mountebank with ostensibly redoubtable weapons against natural laws.

Chemical antiseptic precautionary measures were never established as a practicable truth, and are fast being stripped of even a resemblance to it. On the other hand asepsis—absolute cleanliness—is a rational possibility, unfortunately not always attainable. The nearest approach to this state, by physiological and hence rational means, is the fittest preliminary and post-operation measure serviceable to surgeon and patient.

The selection of patients, or rather the "election of the proper time" to operate, considered from the point of the patient's fitness to undergo, survive, and be benefited or healed by an operation, is an affair surrounded by no little difficulty, and is of prime importance.

Modern surgical exploit, apparently ignoring this precaution, is too often stimulated to premature interference by a spirit of competition in no degree honorable to our calling.

I extract from Thomas Bryant's contribution to the International Encyclopedia of Surgery, vol. ii, p. 51, the following: "It is true that within the last few years a school of surgeons has been formed, the members of which talk of antiseptic surgery and claim for themselves the title of antiseptic surgeons, as if it were applicable to themselves alone, or rather to such of their body as have belief in the germ theory as a cause of most, if not all, the surgical ills to which wounded flesh is heir, who assert, rather loudly and dogmatically, that antiseptic surgery must stand or fall with the theory upon which their practice is based; that no unbeliever is likely to carry out the practice with any probability of success, since it is only by a staunch believer in the theory that the care and attention to every detail of treatment sufficient to bring about a good result are likely to be given." . . . "I need hardly say that much of this is bold assertion and nothing more, and that it is apparently due to the sanguine temperament which seems attached to those who pin their faith to a taking theory and adopt the practice based upon it in blind deference to the authority of its distinguished originator; for facts, calmly looked at, *neither by their number nor by their weight* justify these conclusions, but irresistibly suggest that an enormous superstructure has been raised by the ingenuity of its founders upon a narrow foundation, and that good results have been too hastily attributed to causes which have been but *some* of the factors of a work to which others equally potent for good have, without doubt, contributed. Facts, indeed, have been employed by our self-styled antiseptic friends as legal advocates use small data which tell in their favor to support the cause they have in hand, but not as the judge who has to weigh evidence and with an unbiased mind give judgment."

"It is only by this explanation that we can understand how the 'antiseptic surgeon,' when he gets a good result, is so fond of asserting that such could not have been brought about by any other form of practice than that which he has adopted; and when he is attempting an operation which may, in all truth, be called experimental if not rash, maintains that he undertakes it 'under the spray' with all confidence and with a moral certainty of meeting with success."

Since we do not possess a supernatural power to revamp to our liking the physical *habitus* of our patients, it is only becoming to address oneself with patience and natural means to the establishment of such constitutional improvement as is calculated to give greater primary assurance of success. This is true of all surgical proceedings, not even excepting a large number of emergencies ostensibly demanding the immediate use of the knife. It is unquestionably true of all cases of a chronic nature, and especially of those prospectively remediable by plastic or orthopedic operation. It is also true that frequently a deformity or local disease effects a depression of the general physique, and that its prompt removal is followed by a general uprighting; but it is also true that such depression is born of the helplessness of the patient, and can be dissipated—properly before operation—by judicious management. The self-compromising tendency of all chronic sufferers is too generally recognized to require more than passing notice; but it should be the office of the physician to study the unsalutary mental influences of the case in hand and discuss them after the most promising fashion, not in the manner of the charlatan, but with a laudable exhibit of previous successes attained under similar circumstances. The habits of the patient should be regulated, and every detail of comfort and health well ordered. Then, the most opportune moment for operation being selected, the greatest probability of success will attend the beginning. The question of anesthesia, whether local or general, to be used in a given case is one which will be determined, first, by the nature of the individual; second, by the location and extent of the operation field. General anesthesia is losing caste with surgeons in the performance of minor operations, and cocaine is rapidly taking the place of chloroform and ether. There are many excellent reasons for this aside from the objection urged against cocaine (by others as well as myself) as sometimes interfering with primary union, and now and then inducing alarming symptoms of collapse when used hypodermically. Any and all known and available anesthetics, however, are dangerous and measurably uncertain in their effects, both primary and secondary. For my own part, I have learned, after long and almost unexceptionally pleasant experience with it, to prefer chloroform and general anesthesia except in quite small operations; in these I have rarely used any agent other than cold. An anesthetic should never be trusted in other than skilled hands, unless its administration be closely supervised by the surgeon. Cleanliness, rational expedition, and perfect hemostasis should characterize all operations where this is possible. In plastic operations nothing except systemic contra-indication is more fatal to success than the absence of the first and last requisites named. No wound in which primary union is sought should be closed until the least hemorrhage appearing has been arrested perfectly. The same is true of wounds communicating with the great cavities of the body. Proper attention to this detail of operation, in this connection especially, underlies the grandest success of modern surgery; without this care every other precaution may and often does prove utterly inadequate. It is when preceded by proper preparatory measures, the crowning feature of surgical success, and is at all times a basal element of prognosis.

The presence of escaped blood in excessive quantity in the vicinage of a simple fracture is a well-recognized source of retarded repair under any circumstances, and if occurring in an individual very much below the standard of health, it may and does give rise to serious general and local interruptions, and sometimes pus formations. Any quantity of blood, more than sufficient to subserve the purposes of the desired agglutination of divided surfaces, left in or near a wound, or in a visceral cavity communicating with it, is an excess, and may prove a cause of mischievous local irritation, a source of general infection, a direct cause of local failure or fatal systemic disease. That germal influences are co-active in bringing about such a result is undeniable; but that they can be rendered incapable of exercising their functions as invading scavengers by antiseptic chemicals is not substantiated by practice nor in the histological laboratory. The nearest approach to perfect local precautions in this regard are hermetic sealing or perfect drainage.

The first is exemplified by the behavior ordinarily of subcutaneous lesions of soft and hard structures, the second by the establishment of the efficient spontaneous escape of putrescent tissue *débris*. Together these phenomena constitute the only and wholly unquestionable indications for the dressing of wounds, and these, well met, alone may and do prevent sepsis, except when pre-existing constitutional conditions which human ingenuity has not yet compassed become active contraventions. Fatalism and idealism in surgery, as elsewhere, are disturbing to the *esprit de corps* of the scientist and fact-hunter. The fatalist in medicine is the charlatan who ministers to human ills irrelevantly, relying on final providential succor; the idealist is he who invents a dogma and affects to support it with visionary logic. Both are reprehensible; the first is preferable; but facts as simple as truisms alone are admissible as guides to true philosophy every where. The true function of the physician is to imitate nature in her methods; impatient, however, of her apparent tardiness, he at times exemplifies the poet's saying that "Fools rush in where angels fear to tread;" he applies his poisonous lash and mistakes the patient tolerance of puissant nature for the effect of his supposed timely coercive measures.

After a wound has been properly closed it should be finally dressed with the purpose of securing the greatest comfort compatible with the ultimate good of the patient, and also with a view to maintaining equable temperature and securely protecting the sore from extraneous and possible polluting influences. The dangers incident to neglect in this connection are manifest. No ointments or lotions of any description should be used. A very weak solution of chloride of sodium in water is admissible as an addition to the primary dressing, and afterward, if need be, for irrigation. Such a solution is the closest analogue to blood-serum procurable, and therefore the most rational stimulant and purifier for wounds. I have known the most offensive wound-odors to be promptly dissipated by its plentiful use when carbolic acid, iodoform, and the regulation solution of bichloride had utterly failed, except as to the first two agents mentioned, which only add their own unpleasant effluvia to that already existing. Besides its natural adaptation, efficiency, and harmlessness as a wound-dressing, the vast influence of chloride of sodium in nature generally as an invariably adequate detergent appeals irresistibly to reason from common experience. Of Lister's method, Billroth, of Vienna, Surgical Path. edition of 1885, p. 114, says: "If we inquire into the practical working of this treatment we hear chiefly praise, and many speak enthusiastically of its wonderful effects." . . . "It is different, if we accurately examine the correctness of the theoretical views from which Lister starts and inquire whether by his mode of operating and dressing he has attained his object. In regard to the latter point, it has been often proved that in the cicatrices of wounds treated according to Lister's method, and which healed rapidly without reaction, cocco-bacteria were found about as often as in secretions from wounds which were merely dressed with regard to cleanliness. This shows, first, that the presence of these vegetations in itself proves nothing about the phlogogenous or other poisonous qualities of the secretion. Second, that Lister's dressing is no guarantee for the destruction of bacteria. Against this second point it might be urged that there is no proof that these germs reach the wound only from without; it is possible that permanent germs enter the blood through the respired air, and, though they may not develop under normal circumstances, do so in the secretions of the wound. If this be possible, there is no sense in the theory of Lister's method as far as regards its attacking organic germs by chemical means. Indeed, it is my opinion that those not very unfrequent cases where cocco-bacteria have been found in completely closed, very deeply-seated points of inflammation, which never communicated with the air, can only be explained in the way above mentioned. . . . Various changes have also been made in the mode of applying the dressing; the spray has been abandoned, and in its place, after the operation, the wound has been washed with more concentrated antiseptic solutions, etc. Thus Lister's dressing has been variously modified, and from each modification the same results have been obtained as from the original. This confirms me in the opinion formed when this method was first described, and which I have already stated, that the scrupulous cleanliness and the careful removal of secretions from the wound is the most important part of it, and that it is chiefly popular among surgeons who formerly paid less attention to these points and left the dressings to the dirty hands of nurses, or to careless students, or young physicians, while now the dressings are all applied according to definite principles of cleanliness."

I deem it sufficient to quote this brief but complete exposition by Billroth of the clinical and practicable aspect of "Listerism," since no one can doubt its meaning or misunderstand this simple presentation of the subject. The laurels which have been won and are honorably worn by this, the greatest German surgeon and world-renowned clinical student and teacher, are the tributes which all men pay gigantic brain-power and uncompromising, honest, and successful searching after truth. Not a line, not a word in his great work on surgical pathology, which has now reached its ninth edition, but is replete with evidences of mature thought and deliberate labor. Of such material are the teachers who firmly correct the erring and unhesitatingly rebuke the pretentious.

The election of dietary rules should have for their basis the experience of the individual under treatment. Artificial or badly prepared foods should be avoided when possible; this latter warning applies especially to hospitals and to those hospital surgeons who are not sufficiently active in looking after the cookery offered their charges, and often are not conversant enough with kitchen-science themselves, except as its absence might be demonstrated to the disgust of their own palates, which would promptly condemn, did they taste them, the unsavory mixtures forced upon their helpless patients.

So-called slop diets, much in vogue with the more affluent classes, should be only permitted on rare occasions as temporary placebos; wholesome, albuminous, and amylaceous dishes, not over-spiced, should constitute the *res princeps* in the invalid's dietary. Pure water and good milk are the best drinks for the sick. Only careful stimulation with liquors is admissible.

A clean, airy, well-lighted, spacious, and sparingly furnished room, with light and readily movable furniture, constitutes the ideal apartment for the treatment of the sick. It is desirable, for aseptic reasons, to have no carpets on the floor, and no padded or unchangeable furniture of any sort. The mattress should be elastic and of aerable, cheap material, clean straw or excelsior most preferred, which can be, if desired, replaced frequently. No excreta or other unpleasantly odoriferous matters should be tolerated in a sick-room longer than is absolutely necessary. An officious or garrulous nurse or attendant friend is a veritable *bête noire*, even more unmanageable but not so unavoidable as germs, though both come to the sick looking about for their natural prey. This human vulture is the annihilator of our patient's rest, which is of prime importance to his comfort and progress. Apply a moral detergent of the most forceful character to this individual and receive the grateful acknowledgments of the sick, all of whom duly appreciate the substitution of quiet and facile order for their opposites.

LOUISVILLE, KY.

TREATMENT OF EPITHELIAL CANCER.*

BY J. CLARK M'GUIRE, A.M., M.D.

There is hardly a disease to which the flesh is heir that has been subjected to such a variety of treatments as epithelioma, from entire extirpation by the knife to the latest method of treatment by means of aveloz, the juice of a plant native to Brazil, not forgetting the *renowned* cancer cure, chian turpentine. Though such an eminent authority as Kaposi, of Vienna, has declared that, "no matter whether an epithelial cancer has been removed by the knife or by cauterization, recurrence always takes place within a shorter or longer period of time," I take it there are few if any dermatologists of the present day who would agree with him in such an unfavorable prognosis. Of course recurrence may take place, no matter how the lesion may be treated; but however unfavorable the prognosis, without doubt the great majority of authorities are agreed the disease may be permanently eradicated from the system. In the following remarks I will only refer to the local treatment of the disease, as constitutional treatment is generally conceded to be ineffectual. Before referring to my individual experience I would make brief mention of several well-known methods of treatment, together with the more recent advances in the therapeutics of the disease.

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*Read before the Medico-Chirurgical Society, Louisville, Ky., July 15, 1887. For discussion see page 107.

Local application of arsenic, especially in the form of Marsden's paste, has perhaps had more support than any other means of treatment. It consists of equal parts of arsenious acid and mucilage gum acacia; the whole of the cancerous surface is spread over with this paste, provided it is not more than an inch square; in a few hours a bread and milk poultice is substituted, a slough forms, dries up, and falls off in a few weeks. Considering the amount of pain occasioned by this application, and it is considerable, the danger of constitutional poisoning and the limited surface that can be dealt with with safety, I am of the opinion it should be seldom resorted to, in fact if the lesion is not more than an inch square, it can, in the majority of cases, be easily removed by the knife, and then, if you please, treated with some less painful caustic. Among other caustics may be mentioned chloride of zinc alone or with flour, acid nitrate of mercury, sulphuric acid paste, Vienna paste; but all these applications cause more or less suffering, and the amount of tissue destroyed can not always be controlled.

McCall Anderson has derived benefit from painting the surface with Fowler's solution of arsenic. Dr. Thomas Smith recommends a saturated solution of salicylic acid. Dr. Wm. Collins reports the cure of several cases by means of an application of powdered ergot to the sore.

Of the more recent remedies that have been highly extolled for the cure of this disease may be mentioned the juice of aveloz. A few years ago a small amount was sent from Brazil to the authorities at Washington to distribute. Since then there have been several reported cases of cure from its use by different observers. After an experience of one and a half years in its use as a remedy for cancer, Dr. Ladowiski came to the conclusion that united with a powerful escharotic action it has the power of dissolving organic tissue.

The juice is applied by means of a brush, and repeated every few days. It is said to have extremely irritating properties to the sound tissues, and that its application is very painful.

Reclus reports several cases cured in a few weeks by keeping the parts covered with compresses wet with a saturated solution of chlorate of potassium. Resorcin in the form of an ointment has been used in some cases with benefit; but of all recent remedies pyrogallic acid seems to be the most popular. Dr. Bulkley has used the pure acid sprinkled in the sore with good effect, but it is usually advised to use it in the form of an ointment, in from half a dram to two drams to the ounce. I believe it was first recommended by Jarisch about eight years ago. Though its effects are perhaps slower and less brilliant than by some other methods of treatment, on account of its being painless and comparatively free from danger it is to be recommended in many cases where it is impossible or not expedient to use the knife. The ointment is applied four or five days continuously, renewed twice a day; after an interval of a few days it may again be applied; the parts are then dressed with vaseline. It will be observed that the patient in many cases now first complains of pain; this is believed to be caused by the returning circulation in the parts. The entire extirpation by the knife is probably the best method of treatment when it can be practiced, not only the lesion itself, but a considerable amount of surrounding tissue should be cut away, or the curette may be used, as for lupus vulgaris, as recommended by Auspitz and others, then the surface may be treated with some caustic, whose action may be easily controlled, such as caustic potash. If the knife can not be used for any reason, and if the glands are already affected, for the moral effect, if for no other reason, such an application as pyrogallic acid may be used with at least a hope of doing some good. To illustrate the benefit that may result from this application I will now report several cases.

Case 1. Seen with Dr. G. H. Fox in October, 1885, at the Skin and Cancer Hospital, New York City, a man about forty five years of age, had twenty-four tubercles scattered over the face, with one deep ulcer on the cheek causing ectropium of the eyelid. There was no family history of cancer; the disease had lasted for thirteen years. Diagnosis of Dr. Fox, multiple epithelioma. The disease was being treated with pyrogallic-acid ointment; within a few weeks the lesions were all looking better, some had entirely healed.

Case 2. Patient at Louisville City Hospital. Male, sixty years of age. An ulcer about the size of a silver dollar, situated on the scalp. Diagnosis of cancer verified by the microscope. History of having received a blow upon the head some years previously, causing an abrasion which had never healed. Had been operated on by the knife without benefit, the disease soon making its reappearance in the scar. Pyrogallic-acid ointment, half a dram to the ounce, was applied continuously for five days, being renewed twice a day. After an interval of a few days the acid was again applied for a week, and the surface dressed with vaseline. Within a month from beginning treatment the ulcer was reduced to the size of a ten-cent piece. During my temporary absence from the city the patient was operated on with the knife by a surgeon of the hospital staff, who was unaware he was then under my treatment.

Case 3. Mr. C., fifty-six years of age, ulcer on the right side of nose and cheek. The disease made its appearance as a "mole" five years previously. In a short time "the part scaled over," and was treated as an eczema; cuticura and like remedies were used, but of course the disease did not improve. The ulcer was irregular in outline, hard, indurated edges, red base, fetid discharge, the glands not affected, patient's general condition good. Applied twenty per cent pyrogallic-acid ointment for four days. After an interval of a few days it was again applied for five days, when the granulating surface was dressed with vaseline. Within six weeks the lesion had entirely disappeared; one year later there had been no return of the disease.

Case 4. Mr. S., sixty-five years of age, an ulcer the size of a twenty-five-cent piece, situated on the right temple. Edges and surrounding tissues somewhat infiltrated, secreting an offensive fluid. Glands not affected; patient complained of some pain. The disease first made its appearance as a wart, had been treated by means of Marsden's paste before coming under my observation, but made its appearance again within one year. It was treated with pyrogallic-acid ointment, as in the previous cases reported; within a month the sore had completely healed over. Heard from the patient two years later, he then stated there had been no return of the trouble.

In each of these cases the diagnosis of cancer was verified by means of microscopical examination of the tissues and secretion. Though the external application of pyrogallic acid is comparatively free from danger, there has been reported several cases of death from its use. Besnier reported four cases of poisoning, two of which proved fatal, under the care of Pick, Vidal, and himself. The poisonous effects are supposed to be due to the great affinity of the drug for oxygen. Besnier, in a case of poisoning by it, is said to have saved a patient's life by making use of inhalations of oxygen.

Louisville, Ky.

GUN-SHOT WOUND OF THE STOMACH.

BY J. W. PENN, M. D.

In view of the interesting and instructive discussion (American Practitioner and News of June 11, 1887), at the recent meeting of the American Surgical Association in Washington, upon Dr. Nancrede's paper on gun-shot wounds of the abdomen, the following report of a case which I treated nine years ago may prove interesting. The more so, since I believe there are two points of importance, both to the surgeon and the patient, in relation to that class of wounds which, so far, I have not seen mentioned any where in connection with them.

At about 9 o'clock a. m., May 28, 1878, I was called to see Alex. M, who lived five miles from town. The messenger stated that in a personal difficulty with one of his neighbors he had received a pistol-shot in the abdomen. On my arrival, three hours after the injury, I found the patient in a state of almost complete collapse from shock and hemorrhage. A conical pistol-ball, size 32, at close range, had penetrated the skin over the epigastrium, one inch to left of the median line and about two and a half inches below the ensiform cartilage.

The wound was received about an hour, perhaps less time, after eating a hearty breakfast.

The ball passed, as I believe, through the anterior wall of the stomach, as there was no evidence of its having penetrated the posterior. Since the ball did not pass off through the bowel, I feel sure that it lodged among the contents of the stomach, and was thence ejected through the esophagus, for his attendants told me that he vomited freely almost immediately after the shot, first the ingesta and then a large quantity of coagulated blood.

He continued to vomit at short intervals as they carried him to his home on a stretcher, each time throwing up nothing but clotted blood. He vomited once only after I arrived, a large mass of coagula. He was almost pulseless, cold, and colorless, and was to all appearances moribund. Dr. E. D. Peete, of this place, who arrived a few minutes before I did, concurred in the opinion that the wound was necessarily mortal.

Fearing to administer brandy or whisky by the mouth in consequence of the wound through the coats of the stomach, I gave a half grain of sulph. morphia hypodermically, and told the family that I considered the case hopeless.

The patient remained quiet after the morphia was administered, and when Dr. Peete and I left him at noon there was no perceivable reaction nor any appreciable sinking. I took charge of the case, and left several portions of morphia to be given in a small quantity of cold water, as might be indicated by pain, restlessness, or evidence of further failure of the already feeble pulse.

On the following morning I found him, contrary to my expectations, alive and comparatively comfortable. He had no pain, the extremities were warm, and the pulse was regular and moderately full. There was slight tenderness around the wound. He had evacuated the bladder without difficulty, and complained of nothing except extreme thirst.

As he could take no food by the stomach with safety and craved nothing except cold water, I ordered for him the mucilage of the common cactus, the round-leaf prickly pear. This I prepared by first cutting out with a sharp-pointed knife all the eyes containing the spines, then washed and cut the leaves into small squares, splitting them apart, and steeping them in cold water. It was made fresh every morning and evening, because if allowed to stand long before using in warm weather it ferments.

Thus prepared the cactus affords a most refreshing, palatable, and nutritious mucilage, not only grateful to the thirsty palate, but capable of sustaining life for many days without the aid of other nourishment, and, as I conceived in this case, acted as a soothing application to the wounded stomach.

The morphia given by the mouth as occasion required and the cold cactus mucilage in small quantities oft repeated comprised the treatment, with the exception of the constant application of cloths saturated with cold carbolized water over the entire abdomen.

On the morning of about the third or fourth day, I discovered a hard swelling about the size of a saucer around the wound. This extended in every direction until it covered the entire abdominal surface, interfering to some extent with respiration. But under the treatment above described, in spite of my unfavorable prognosis, the man recovered, and is still living in the enjoyment of excellent health.

As well as I now remember it was about ten days or two weeks before I attempted to evacuate the bowels, which was then readily accomplished by an enema of soapsuds. After this evacuation they continued to act regularly.

The hardness, swelling, and tenderness had pretty well disappeared by the twenty-first day, after which convalescence was rapid and uninterrupted. At no time during the course of the case did the temperature exceed 103°.

The two points of interest above alluded to are, first, a conical or pointed ball inflicts much less injury to the soft parts than a round or spherical ball. The reason is obvious, especially if the muzzle of the weapon is near to the implicated surface so that the ball moves in a straight line point foremost.

Second, when the stomach, colon, uterus, or even the bladder is penetrated by a conical ball of medium size, 32 or smaller, as is very likely to be the case under ordinary circumstances, and the wounded organ is in a state of distension at the time the shot is received, as a result of the stimulus of the shot the contents are speedily evacuated, thus reducing the wound to a mere puncture. If there is evidence that the shot has not passed beyond the cavity of the wounded organ, this is ground upon which to base the hope of a favorable termination without operative interference. In wounds of the urinary bladder, because of the almost unavoidable retention of coagula in its cavity, the prognosis is less favorable than in wounds of any of the other organs mentioned, not excepting even the gravid uterus. But even this difficulty might be overcome by copious irrigation with warm carbolized water, which would subserve the threefold purpose of hemostatic, solvent of the coagula, and an efficient antiseptic. If the ball were left free in the cavity it could, after the inflammatory action from the wound had subsided, be safely removed through the urethra.

HUMBOLDT, TENN.

TREATMENT OF EPILEPSY.

BY C. S. BRADFUTE, M. D.

That epilepsy is becoming very prevalent in the United States is a fact that should arouse the attention of the thoughtful and observant physician. Much of late has appeared in the journals concerning it, but most of its literature seems vague and unsatisfactory. It may be *mal apropos* for me to add to the already voluminous papers that have been written upon it, but I meet with so many errors in its management that I hope I may be pardoned for the suggestions I here offer, which arise from a somewhat extended opportunity for observation. At the outset it is necessary to distinguish between true, or essential epilepsy, and symptomatic, or epileptiform seizures; also, between the nocturnal and diurnal forms. If this be done the therapeutist has won half the battle, and it only remains to select the proper remedy. To employ the bromides in all cases, irrespective of the cause, or the state of the intracranial circulation, is a mistake that frequently leads to disappointment and even absolute harm. In nocturnal epilepsy the bromides should not be given, for the brain in the somnolent state contains less blood than when it is functionating, and their physiological action added to nature's depletion would only increase the tendency to the convulsive seizure, hence we must choose agents that will antagonize the morbid condition in another way, and the best of these are undoubtedly, to judge from late results, strychnine and antifebrin. The latter may be given in doses of three grains three times daily, increasing the dose as may be indicated. In diurnal epilepsy, which is generally sthenic, with an active intracranial circulation, the bromides come into play, and are the only agents upon which we can depend, and if they be given properly, with due attention to concomitant circumstances, seldom fail. The quantity to be given can not be expressed by the posological tables, it will be just that amount that will check the paroxysm and prevent further manifestation of the disease, and their administration must be kept up for a long period of time—certainly not less than eighteen months after the last attack. F. L. Miles, of Baltimore, relates the case of a young lady who took the bromides persistently for over two years, notwithstanding they produced during the greater part of the time a disfiguring form of acne. Her endurance was rewarded by a complete cure. A little liquor potassii arsenitis added to each dose will prevent this acne. Symptomatic epilepsy generally requires an entirely different plan of treatment. This form is due to some lesion in the brain, or is reflex from the stomach. And here, as an aid in diagnosis, it should be remembered that epilepsy occurring in early life is generally essential; coming on after middle life it is frequently due to a coarse lesion of the brain. The cause must be diligently searched for; syphilis is probably the most frequent. For the same reason given above the bromides are contra-indicated in anemic cases.

The dietetic management is of prime importance; indeed, I may say that in my experience I have found medication useless without it. Epileptics, as a rule, are enormous eaters, their appetites seem always keen. In the words of a distinguished member of our profession, "They eat from early morn till dewy eve." This boulimia, when it is present, constitutes the greatest obstacle to the cure of epilepsy, as evinced by the wonderful improvement which takes place when it is checked, and the patient given nourishment properly. And here arises the practitioner's main difficulty in the treatment, and he will often hear the whining complaint, "Doctor, I had another attack yesterday," until he succeeds in impressing upon his patient the necessity of restraining his alimentary desires. As Bartholow observes, if an undigested supper in the stomach of a young child can excite a reflex contraction of the laryngeal muscles, producing "croup," may not the same irritation in an epileptic unduly excite the spasm and inhibitory centers? The existence of these centers is denied by some, but Unverricht and Helzig have shown that something nearly akin to them does exist; be that as it may, the fact remains that undigested food will inaugurate an epileptic paroxysm. I think it is necessary in all cases to lay down a strict regimen for the patient, the same as in phthisical subjects, and let him eat only light, nutritious, and easily digested food. A minimum amount of meat should be allowed, with fresh vegetables and fruit. In aggravated cases skimmed milk must take the place of solid food as much as possible.

PHILADELPHIA, PA., 906 Spruce Street.

Societies.

MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting July 15, 1887, Dr. J. G. Cecil, President, in the chair.

Dr. von Donhoff exhibited a testicle removed from a man about fifty years of age, who had been suffering from hydrocele. The testicle was probably sarcomatous. In removing it he had dissected out the sac, leaving some thirty square inches of raw surface exposed, the wound was treated without antiseptics and healed by first intention except at the point where the ligatures passed out.

Dr. Roberts exhibited a tumor removed from a boy thirteen years of age. When first seen the boy was found to be strumous and covered with a disease resembling acne. He had pain in the back, with symptoms of spinal disease, but this was found not to be present. One testicle was half-size larger than the other, nodular, and indurated. An enlargement was then found under the right rectus muscle, yielding on auscultation a distinct bruit. The patient grew worse and the tumor increased in size, giving impressions of fluctuation, but yielded no pus on aspiration.

The autopsy revealed a large tumor attached to the aorta and supposed to be sarcomatous.

Dr. Rodman believed the tumor to be sarcomatous, most likely an encephaloid sarcoma.

Dr. Vance reported the case of a boy, fifteen years old, who had fallen from a freight train while in motion, and had been crushed by the oil-box striking him after falling. The patient was exhibited to the Society. He had suffered a scalp wound two and a half inches long, involving the periosteum. On the left side the second, third, fourth, fifth, and sixth ribs were fractured; the clavicle was fractured at the middle and outer third. The humerus was fractured one and a half inches below the head. The scapula had a multiple fracture. The acromion was left in position though fractured; below the spine the bone was broken into several pieces. The coracoid process and head seemed to hold together, the former presenting posteriorly in the axilla and the latter anteriorly. A diffuse hematoma extended across the chest to the right shoulder. All the fractures had united except that of the humerus below the head, at which point an effort to establish a false joint was being made.

Dr. von Donhoff, in reference to the establishment of pseudo-arthrosis in the shoulder-joint, said the history of such attempts were not favorable. Surgeons have well nigh universally abandoned that course. If the patient is above forty years of age the prospect is better, but in the young the joint almost invariably becomes immovable in a few years.

Dr. McGuire read the essay of the evening, his subject being the curability of epithelial cancer of the skin. (See page 102.)

Dr. Roberts had never seen cancer treated with pyrogallic acid. For ten years he had successfully used a paste made of sulphuric acid and asbestos.

This is applied to the ulcerating surface and allowed to extend a short distance beyond over the sound skin. It is to be applied immediately after mixing, since if allowed to stand it soon becomes worthless. It is allowed to remain for an hour and a half. Pain may be avoided by using cocaine. In cases where the diagnosis is uncertain, as between lupus and epithelioma, he has scraped the surface and applied nitrate of silver. The disease often returns.

Dr. Clemens has used equal parts of arsenious acid, charcoal, and pulverized blood-root in about five cases, with satisfactory results. In one case he had applied the paste and left it until the eschar dropped off.

Dr. Senteney had treated four cases with arsenical paste, in three of which the disease did not return. In one the tumor returned after two years, when it was removed with the knife. Now, after twenty years, the patient being eighty years old, there is no sign of its return. He had seen the late Dr. Cummins remove a cancer twice with the knife, but both times it returned. It was then removed with the arsenic and blood-root paste; it did not return. He himself had suffered from epithelioma of the face, which was removed with the arsenical paste, and had not returned. To this he had applied cocaine on first using the paste, but instead of coming away it became projected as a warty mass. A second and effectual application was made without the cocaine.

Dr. Godfrey had had only a limited experience. He had removed a prepuce some ten months before for epithelioma, which has not yet returned. His experience hitherto had been that they do return. In certain quarters he had seen a crude extract of sheep sorrel, the active principle of which was doubtless oxalic acid, much vaunted as a remedy for the disease inquestion.

Dr. Marvin said it had been taken for granted in the discussion that the diagnosis of cancer can be made out with the naked eye, while in fact it is often impossible to make the distinction between epithelioma and certain forms of ulcer about the face without the aid of the microscope. Epitheliomata are certainly the least malignant of all forms of cancer. But all warty growths are not cancer, and many that are not malignant receive treatment as cancerous, get well, and give credit to the remedies used as cures for cancer.

He had used arsenical paste, sulphuric acid and chloride of zinc, but they all give pain. He had known a prominent homeopath, formerly practicing in this city, to use with success the chloride of chromium.

Dr. McGuire in closing the discussion said he did not believe nitrate of silver burns deep enough to cure cancer. While epitheliomata are liable to return after all kinds of treatment, he believed pyrogallic acid gives the greatest number of successes.

Dr. J. M. Ray reported a case indicating the risks of being misled in diagnosis. The patient, a middle-aged lady, was taken with pain in the ear. On the fourth day paralysis of the seventh nerve came on, at which time he first saw her. She was vomiting, and the external ear was filled with pus. The indications pointed at once to the conclusion that it was a case of middle-ear disease with pressure on the facial and resulting paralysis. Closer investigation, however, showed that the disease was eczema of the external ear, the paralysis the result of exposure to cold, while the vomiting had been produced by a dose of calomel just taken.

Dr. Anderson said it was common enough to have Bell's palsy from cold.

Dr. Roberts reported a case of sunstroke successfully treated by affusion of cold water.

Dr. Rodman reported a case of Bell's paralysis accompanied by persistent atrocious neuralgia in a man aged thirty, treated by exsection of the infra-orbital, and subsequently of the supra-orbital nerve. The patient is now free from pain. Every thing had been tried that could be thought of in the way of medicaments.

Dr. von Donhoff said there had been a number of cases reported of cures of neuralgia by nerve stretching, which seemed to be a better procedure than simple exsection.

Dr. Roberts had on several occasions simply divided the nerve with only temporary relief. In one patient, a woman of fifty, in whom the most excruciating agony was caused by simply touching the face, the inferior dental nerve, by means of the dental engine, was removed with complete recovery. In most cases when one twig of a nerve is removed the pain returns in another. In one case he had removed all the accessible branches of both the inferior and superior maxillary without result. In most cases relief is only temporary.

D. T. SMITH, M. D.,
Secretary.

Reviews and Bibliography.

A Hand-book of General and Operative Gynecology. (Volume I.) By Dr. A. HEGAR, University of Freiburg, and Dr. A. KATTENBACH, University of Giessen. In two volumes. Volume VI of a Cyclopedia of Obstetrics and Gynecology. (12 vols.) Price, $16.50. Issued monthly during 1887. New York: William Wood & Co.

In reviewing the earlier volumes of this series we took occasion to speak in most complimentary terms of the charm of style in which they were clothed. The work before us is hardly to be regarded as a rival in that respect. Being largely devoted to description of operations, and also translated from the German, a certain allowance is to be made if it does not come up to the highest standard in the way of attractiveness of style. But none the less are we supplied with a thorough, original, and highly authoritative treatise, a conclusion which the name of Hegar alone would guarantee.

The authors advocate the employment of the most advanced surgical procedures in gynecology. Nowhere is this more marked than in treatment of malposition of the uterus, in which they lead the operator away from reliance on the wholesale employment of the pessary. "Spontaneous recovery rarely takes place during their use. . . . In our opinion the instrument is merely a makeshift, since every prolapsus, unless caused by a tumor, is curable by operation. A certain amount of comfort is accredited to them and sometimes cure." If their efficacy has been overrated as supports for the uterus, it can not be well denied that they have furnished support for the pockets of a multitude of quacks.

The authors are full and judicious in regard to operations involving the peritoneal cavity, and looking from the German stand point of rigid antisepsis seem puzzled at the exceptional not to say marvelous success of Keith and Tait, acting in a large measure in disregard of its methods.

Altogether the work is one to be highly commended, and like the others of the series will be welcomed as a valuable addition to the library of the gynecologist.

The Pathology and Treatment of Gonorrhea and Spermatorrhea. By J. L. MILTON. Pages, 474. New York: William Wood & Co. 1887.

A pleasing feature in medical and surgical writers of the first prominence is the growing disposition to iconoclasm, to the breaking up of traditions to which years have been added merely because they were already old.

This work of Mr. Milton's exemplifies it in a high degree. It presents the aim of an able intellect to separate clearly what may be looked on as established from what is doubtful, and not merely to prove every assertion, but to place it on such a basis that it can not be disproved.

With material drawn from a vast experience, and sifted by a careful observer and able reasoner under such regulations, we have here a work which in its province is not surpassed.

Sanné on Diphtheria, Croup, and Tracheotomy. Translated, annotated, etc., by H. C. GILL, A. M., M. D., LL. D. J. H. Chambers & Co., St. Louis, Mo.

This most excellent treatise is too extensive to be given the review it deserves in the space here allotted to such work. Its 656 pages, with its many perfect wood cuts and colored plates excel any thing on the above subjects that it has been my lot to see. The diseases are studied in all their different phases: ocular, aural, nasal, and cutaneous, being a few only of the subdivisions made. The sections on pathological anatomy are quite exhaustive. "The causes which retard the removal of the canula" seem to me to be just so many reasons in favor of intubation. The author's list of the "accidents of tracheotomy," such as "hemorrhage, primary and secondary; imperfect incision of the trachea, too long or too short, too much to one side or the other, too low, too high, or perforation of trachea through and through; false membranes of the trachea; subcutaneous emphysema; abscess of the mediastinum; phlegmon of the wound; erysipelas, gangrene, and diphtheria of wound; irregularities of and premature cicatrization of the wound, speak volumes in favor of intubation. The author gives but three or four pages to the consideration of intubation. He recognizes in a few words its importance, but thinks its "exact status has not yet been formulated." The book should be read by all who have the time to devote to it. The whole of it is so important that it would be extremely difficult to point out what is and what is not of value. W. C.

Transactions of the Michigan State Medical Society: twenty-second annual meeting, held at Lansing, May 12, and 13, 1887. GEORGE DUFFIELD, M. D., Secretary, Detroit. Detroit, Mich: D. O. Hays & Co. 1887.

This is an octavo volume of three hundred and twenty-seven pages, the greater part of which is devoted to the papers presented by the Fellows with the discussions which followed. The volume is good reading from beginning to end, and bears unequivocal testimony to the strength of the organization and the earnest industry of the Fellows.

Diseases of the Female Urethra and Bladder. By F. WINCKEL, M. D., of the Royal University, Munich; and Diseases of the Vagina, by A. BREISKY, M. D., of the Royal University, Vienna. Edited by EGBERT N. GRANDIN, M. D., of New York. Wood's Library.

The gynecologist must needs be engaged in practice of very varied character who fails to find light thrown on the work in hand from the pages of this volume within the limits of the subjects it embraces. All important affections of the organs embraced in its scope are discussed at length, and operations incident to their treatment described with great particularity. On first reading, we are struck with the amount of case-taking, which seems carried to a greater extent than necessary, except for purposes of book-making. In so painstaking a work, however, a few faults may be overlooked, and the volume will no doubt be regarded as a worthy addition to the series to which it belongs.

Iritis. By A. G. Sinclair, M. D. Memphis, Tenn. Reprint

Practical Thoughts for Physicians. By G. W. H. Kemper, M. D., Muncie, Ind.

Address in State Medicine. Recent Advances in Preventive Medicine. By George H. Rohé, M. D. Reprint.

The Relation of Health Officers, Medical Profession, and the People to Each Other. By W. C. Cook, M. D. Reprint.

The Technique of Tracheotomy, etc.: Intubation of the Larynx. By Charles Godwin Jennings, M. D. 1887. Reprint.

Three Lectures delivered at the Hospital for Sick Children. By Robert J. Lee, M. D., F. R. C. P. London: Bailliere, Tyndall & Cox. 1886. Price, one shilling.

The Radical Cure of Retro-Displacements of the Uterus and Procidentia, by Alexander's Operation and Modern Colporrhaphy. By J. H. Kellogg, M. D., Battle Creek, Michigan. Reprint. 1887.

Renal Colic, Parasitic and Calculus: a Criticism. By J. B. Marvin, M. D., Professor of Theory and Practice of Medicine and Clinical Medicine in the Kentucky School of Medicine. Reprint.

MORPHINE AND APOMORPHINE IN WHOOPING-COUGH.—Dr. Fedoroff (*Proc. of the Arkhangelsk Med. Soc.*; British Medical Journal) states that he has observed good results from the administration, four times a day, of a tablespoonful of a mixture containing two grains of morphine hydrochloride, one grain of apomorphine hydrochloride, one half dram of hydrochloric acid, and eight ounces of distilled water. The paroxysms are lessened in number after the first few doses.—*N. Y. Med. Jour.*

ANTITHERMIN is the latest introduced antipyretic agent. It is allied in its chemistry to antipyrin; phenylhydrazinlevulinic acid is the chemical name.

Correspondence.

PARIS LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

When cold is made to act on a warm-blooded animal, several important phenomena are observed. With the lowering of the central temperature, it is noticed that all the functions are weakened; nevertheless the reflex functions are more intense, as has long since been established by Dr. Brown-Séquard, but according as the central heat descends to 25° C. and under, a considerable exaltation of the reflex excitability of the spinal marrow becomes apparent; the slightest shock determines twitchings and even convulsive contractions generalized, as if the animal experimented on had been strychnized. To produce this phenomenon, it is sufficient to cool slowly a dog and wait till the central temperature reaches about 22° C.

Dr. Quinquaud, in a note which he presented to the Academy of Sciences on this subject, considers this state of hyper-excitability as dependent upon the saturation of the arterial blood by oxygen, which modifies the nutrition of the nervous elements. At the moment of death the sanguineous liquid contains the maximum of oxygen which it can absorb. Under the influence of cold, glycogenia, glycemia, and glycosuria undergo remarkable variations. The same is the case with the pulmonary exhalation. As may be seen, the researches of Dr. Quinquaud possess a very great interest in the therapeutics by cold baths.

At the same meeting of the Academy of Sciences, Dr. Chibret made a communication on the action of milk diet on the excretion of urine. After long researches undertaken to determine the physiological variations of urea, Dr. Chibret established that when milk diet completely replaced the ordinary diet, the urea excreted augments to sixty per cent. When the milk diet replaces only half the ordinary diet, this augmentation is only thirty-five per cent. One of the patients of the author, rather fat, having diminished in weight, while another who was thin became fat under the influence of the milk diet, and both having furnished the same results, it is impossible to attribute to denutrition the excess of urea.

In an agricultural journal a writer on phthisical cows points out the dangers to which the public health is exposed by the ignorance of certain farmers regarding the breeding of domestic animals. When a cow is made to produce only four or five calves, the animal, which has then attained about seven years, still assimilates promptly and advantageously its food, and if it is killed for the market the owner will be well remunerated, as it will furnish meat in large quantity and of the first quality. On the other hand, the cow will have given excellent milk, rich in butter, lactine, and caseine, which will prove remunerative. The calves will be healthy, they may be fattened a little, and a judicious choice may be made among the heifers which would be likely to make good mothers, which is impossible to know in the hurry of the moment in which they are taken to be slaughtered. The small farmer, on the contrary believes that he is acting in his interest in exacting from his cows more than what is reasonable. He exhausts them to such an extent that he extracts therefrom, to the last degree, all that he is able to make out of them, but at the same time he compromises the health of the other cows which he possesses as well as the future of his calves. When a cow has produced nine or ten calves she generally becomes phthisical, giving milk poor in butter, lactine, and caseine, from which one is unable to draw any benefit, and which is also unwholesome for food. This animal becoming emaciated, do what you may, finds a purchaser only at a low price, and if the little flesh she still has on her bones is delivered for consumption it is to the detriment of the health of those who eat it. The last calves of phthisical cows are born with the germ of the disease, which becomes hereditary, and may be propagated in a whole region of breeding cattle, and their flesh sold in the slaughter-yards is also a danger for consumers, and it is partly for this reason that the small breeder gets rid of his calves at the end of a few weeks if not a few days. In sparing his cow the small farmer will prove himself provident. He will, in the first place, be acting in his own interest, for he will have an animal in good health from which he can derive much benefit, the milk will be of good quantity and quality, and the calves, which, though fewer in number, will not be the less remunerative. He will act also in the general interest in not compromising the public health by offering for sale bad milk and bad meat, and finally he will work toward the amelioration of the breeding of this animal in aiding the diminution of old and used up cows which are dangerous for reproduction, increasing on the contrary the number of adults, which, being vigorous and healthy, will be able to regenerate the stables which a false calculation only too often tends to compromise.

According to the *Gazette Médicale* Dr. Caspary sets himself up as an adversary against the prolonged and repeated mercurial treatment of syphilis after the method adopted by Fournier in France, and which is much in vogue in Germany. Among other arguments adduced in favor of this method there is one which consists in pretending that syphilis badly or insufficiently treated at the outset leads always to grave tertiary accidents. To this Caspary replies that a great many practitioners profess a contrary opinion. On the other hand, examples of reinfection have been known in subjects who had not been submitted to prolonged mercurial cures. Without taking into account that the partisans of the practice of Fournier impute to the abuse of mercury grave inconveniences—thus, Unna attributes syphilitic strictures of the rectum to the action of the mercury employed with a therapeutical object, an opinion which Caspary is far from participating in—it must, however, be observed that the principal argument developed by Caspary is eminently theoretical. It would appear difficult to admit, states the author, that a medicament of an efficacy so heroic as that of mercury could be administered with impunity during so many months and even years. He concludes that it behooves Fournier and his partisans to furnish statistics which would show in a clear and irrefutable manner the superiority of prolonged mercurial cures as regards the power of the drug to prevent grave tertiary accidents. Till now Dr. Caspary, edified by the results of his personal practice, proposes to adhere to the symptomatic treatment of the manifestations of syphilis.

Professor Fournier, whose name has been referred to in the preceding paragraph, being aware of the difficulty that exists in the treatment of the common itch in private patients, recommends the following: (1) The body to be rubbed all over with toilet soap, soap powder, with or without scent. (2) A bran bath immediately after. (3) Body to be rubbed with the following ointment: glycerine, 200 grams; adragant, 1 gram; flower of sulphur, 100 grams; carbonate of soda, 50 grams, to be scented *ad libitum*. (4) A second bath to be taken. (5) The whole body linen to be changed, as well as the sheets, etc., and the gloves to be burned. On the following day a few emollient baths composed of starch or its glycerate should be taken.

PARIS, July 28, 1887.

Translations.

ANTIPYRINE AS A SUBSTITUTE FOR MORPHINE.—At the meeting of the Academy of Sciences (July 11th) M. Germain-Sée read a report on the subcutaneous injection of antipyrine as a substitute for morphine.

The injection of antipyrine in a fifty-percent aqueous solution presents none of the inconveniences produced by the employment of morphine. It does not throw patients either into the somnolence or the state of artificial exaltation which leads to morphinomania. Indeed it often adds a calmative action to a curative power. M. Sée particularizes the advantages of antipyrine in the treatment of hepatic and nephritic colics, acute cardiac pains, and dyspneas or oppressions in the case of asthmatics or of neuropathics.—*Le Progrès Médical.*

SCIATICA TREATED BY COLD—M. Jacquet, at the Society of Biology (July 16th), reported a number of observations from which it appeared to result that the pain of sciatica is instantly quieted by refrigeration with the chloride of methyl applied to the healthy limb. The most favorable results were attained in the most intense and obstinate cases of sciatica.

However, the quieting effects appeared to be less durable than when applied to the diseased limb.—*Ibid.*

REACTION OF THE URINE IN MUSCULAR EXERCISE.—In order to determine the reaction of the urine during exercise of the muscles, Dr. Aducco has made a number of experiments with the following results:

1. During labor the reaction of the urine is at first slightly acid, later alkaline, and during the succeeding rest again acid.

2. The alkalinity of the urine of dogs, after muscular exercise, depends on fixed and volatile alkaline carbonates, the proportion of which is not constant.

3. The amount of urea which appears in the secretion during the hours of exercise is less than that in urine discharged before and after muscular activity.

4. The carbonates which produce the alkalescence of muscle in the dog during activity are a product of the change of matter which proceeds to the end stations; that is, during muscular activity principally those substances are used which yield carbonic acid as the last product of their disintegration.

These results agree with the theory of Franke, that the active muscle consumes principally substances that are free from nitrogen, such as glycogen, sugar, and fat—*Deutsche Med. Zeitung.*

ANTIPYRINE IN THE TREATMENT OF CHOREA. Woilner (*Münch med. Woch.; Gaz. hebd. de méd. et de chir.*) has been led to prescribe this drug in chorea by reason of its influence on the nervous derangements incident to rheumatism. In the case reported, the attack of chorea followed a sudden disappearance of rheumatic symptoms. Sodium salicylate, potassium bromide, and propylamine having been tried in vain, antipyrine was ordered in doses of fifteen grains three times a day, and a cure was effected in twelve days.—*New York Medical Journal.*

DR. GRAILY HEWITT has been appointed a Vice-President of the Gynecological Section at the forthcoming International Medical Congress at Washington.

Abstracts and Selections.

"CANCER OF THE TESTICLE, WITH SECONDARY PLEURISY."—(Dr. John A. Robison—proceedings Chicago Medical Society.) The subject from which this specimen was obtained was a Frenchman, aged about twenty four years, who was admitted to the Cook County Hospital May 1st, for a tumor of the left testicle, pronounced carcinoma, of eleven months' standing. An operation was advised and refused, the patient leaving the hospital. A few days ago he returned with all the signs and symptoms of effusion in the left pleural cavity. The symptoms were so severe that I ordered him to be aspirated, and remarked that the product of aspiration would undoubtedly be bloody serum. So it was. The patient lived only a few hours, and the autopsy demonstrated that there was a large cancerous tumor, six inches in diameter, in the scrotum involving the left testicle; also, a tumor nearly as large in the abdominal cavity, with secondary cancerous deposits over the pleuræ of both lungs at the apices.

The symptoms of cancer of the pleura are always obscure, unless we have the history of primary cancer in some other part of the body. This is the fourth case of pleural cancer I have seen, the cause in these cases being respectively cancer of the kidney, as diagnosticated by Dr. Fenger, cancer of the humerus, cancer of the liver, and the present case of cancer of the testicle.

The exudation in cancerous pleurisy is serum mixed with blood and tissue detritus, if the cancer granulations are degenerating. I believe the bloody serum is almost pathognomonic of cancer, as about the only diseases in which we obtain such a fluid on aspiration is in pernicious or malarial anemia, phthisis and purpura, and even in these diseases the exudation is more likely to be purulent.

Two causes for the hemorrhagic effusion have been assigned:

1. The effusion is the result of the breaking down of the cancerous granulations.

2. It is the result of the cancerous cachexia where the blood is impoverished, the absorbent vessels weak and osmosis very rapid.

I am inclined to believe the effusion is due to inflammation produced by the presence of these foreign bodies—the granulations—and the breaking down of these granulations.

Remarks: These cases teach me this lesson, that oftentimes patients who suffer from cancer of some portion of the body amenable to treatment frequently die of secondary cancer of the pleura, which might have been averted had the primarily diseased tissue been entirely removed. This is certainly true of many cases of cancer of the genital organs, breast, bones, etc.

The specimens were then exhibited. They consisted of the original cancerous tumor of the testicle, the collapsed left lung, whose pleural surface was thickly covered by the reddish exudate, and the right lung, in the apex of which was a cancerous growth one and a half inches in diameter.

Prevention of Summer Diarrheas.—In the prevention of the summer diarrheas, attention to the food must not stop with its introduction into the body. The ferment which produces tyrotoxicon is widely distributed, and it only awaits conditions suitable for its development. We do not know exactly what germ it is that produces this poison; but it is either the butyric acid ferment or some ferment which is frequently developed along with the *bacillus butyricus*, because I have found that if some butyric acid ferment be prepared according to the method usually followed in making butyric acid, and milk be inoculated with this and allowed to stand at the temperature of the body for a few hours or at the ordinary temperature of the room for several days, the poison will appear. Moreover, as is well known, the *bacillus butyricus* grows best in the absence of air, we have already seen that the exclusion of air favors the development of tyrotoxicon. We are aware of the fact that the butyric acid ferment frequently does develop in the stomach. Therefore, I think that the prevention of these diseases necessitates some attention to digestion. If the food lies in the stomach or intestine undigested, putrefactive changes will occur there.

During the hot months, children who are allowed to take food at will often drink large quantities of milk simply for the purpose of quenching thirst. I feel that this overloading the stomach with milk, caused by thirst, often is of no little detriment. It is hardly necessary to specify in regard to other ways in which attention should be given to the digestive organs of children. Those that partake of other foods with their milk should be allowed only the most wholesome articles, and these should be in most perfect condition. Moreover, the depressing effects of extreme heat on the nervous system and its consequent injury to digestion should always be borne in mind.

What to do when Summer Diarrheas Occur. The first thing to do is to stop the administration of milk in any form. The ferment is present in the alimentary canal, and giving the best of milk would simply be supplying the germ with material for the production of the poison. This no-milk treatment is not by any means a new idea; but the reason for it has not been hitherto understood Now that we know that a powerful poison is formed from the putrefaction of milk, the necessity of its exclusion must become apparent to all.

The food used may consist of chicken and mutton broths, beef juice, and rice or barley water. With this list no difficulty will be experienced in giving the child sufficient nourishment.—*Victor C. Vaughan, M. D., Ph. D., Proceedings Michigan State Board of Health.*

Treatment of Cholera Infantum.—Prophylaxis consists in removal during the hot summer months to roomy apartments situated in healthy, cool, and elevated regions of country, or to the sea-shore, where pure, fresh air and good cow's milk can be obtained. The milk from a well-kept and carefully-fed herd should be delivered morning and evening. Those infants whose parents can not afford to take them out of the city should be taken to the parks or more cleanly streets for two or three hours in the morning and evening. As the disease is most disastrous to artificially fed infants, great care should be exercised in the quality, quantity, and the preparation of the milk. The food should be limited absolutely to milk, aud, if possible, to cow's milk. Some seem to have had good results with the various prepared foods, but my experience with them has not been favorable; consequently I prefer cow's milk. Sweet cow's milk can usually be obtained twice a day, and, if it is properly prepared, it will be digested and assimilated. As soon as it is delivered it should be scalded (not boiled) with the requisite amount of boiling water, and then put in a cool place. Lime-water should be added in the proportion of one dram to two ounces of milk. When it has finished nursing, the bottle and nipple should be thoroughly cleansed and soaked in an alkaline water until the next feeding. It should be bathed in water at a comfortable temperature about every six hours Judgment should be exercised in clothing the infant, as too many clothes may do more harm than too few. The best plan is to dress it to suit the variations in atmospheric temperature.

The usual precautions of personal and domiciliary hygiene should be observed.

To control the vomiting and purging usually taxes the patience and the resources of the physician. Unless these are at least mitigated in a few hours, death is imminent. The stomach not only rejects food, but every thing, so that for a few hours all attempts at feeding should be abandoned. The greatest danger is from the rapid loss of the fluid constituents of the body. These should be replenished as far as possible, by administering cool water and pellets of cracked ice in small quantities at short intervals. Thirst is intense, and attempts to allay it should be frequently made in spite of the vomiting, for some of the water may be absorbed, and it will also have a sedative effect upon the irritated stomach. To quiet the stomachal irritability I know of nothing superior to creosote or carbolic acid, half a drop in a dram of lime-water every two hours. In many cases rice-water in small quantities will be retained when every other fluid is vomited. Rubefacients of mustard or cloves may be applied to the epigastrium as counter-irritants.

To check the diarrhea, I have found bismuth subnitrate in cinnamon and lime-water the best combination. In order to derive a good result the bismuth should be given in three-grain doses every two hours to an infant between four and ten months old, and five grains from the tenth to the eighteenth. In some cases, where the bismuth fails, benefit may be derived from lead acetate dissolved in acetic acid and lime-water; enough of the acid should be added to make a perfectly *clear* solution; creosote or carbolic acid may be added to allay vomiting. Both of these mixtures exert a soothing effect on the irritable stomach. Not much benefit is to be expected from the vegetable astringents.

In all cases the condition of the anterior fontanelle is my guide for stimulating. As long as this is depressed I do not hesitate to continue, or perhaps increase, the stimulant. Children bear stimulating surprisingly well. For this purpose I use whisky or brandy, and some times camphor. In too many instances the stimulation is put off until the infant is too ill, or harm is done by leaving it to the discretion of the nurse, when too much is given. In extreme cases ether may be given hypodermically.

As antipyretic measures I use the sponging with cool water, or whisky and water, or bay rum and water. I do not favor the general bath. During this cooling process care should be taken to apply to the infant's head cold wet cloths, which should be frequently changed.

Of the opiates I prefer the camphorated tincture, because it is more certain in its action and more easily controlled.

If there is jactitation or convulsions I rely on the potassium bromide to correct it.

The infant should be kept in the cool air as much as possible. It must be kept upon a pillow, and not in the nurse's arms, and all superfluous clothing should be removed.

The diaper should be removed and disinfected as soon as soiled, and the infant should be bathed.

Stimulation and external warmth are the indications for the stage of collapse. Whisky or brandy and camphor in large doses are imperative. To excite cutaneous warmth, hot bottles, warm blankets, and mustard foot-baths are applied.

The exercise of good judgment is necessary to the success of the stage of reaction. The infant must be given small quantities of milk and lime-water at short intervals. Pellets of cracked ice or cool water must be given occasionally to allay thirst; the stimulant must be gradually decreased; sleep should be secured by the camphorated tincture, if necessary; it must be given the benefits of pure, fresh air; and discretion in clothing must be exercised.—*Dr. S. S. Adams, Archives of Pediatrics.*

TABES DORSALIS IN CHILDHOOD.—(*Rev. Mens. des Mal. de l' Enf.* Freyer.) Three cases are narrated by the author, the ages of the patients being nineteen, sixteen, and nine years respectively. The patients were brothers; the father was healthy, and had not had syphilis. The mother was delicate, and suffering from heart trouble. She had borne eleven children, of which the two eldest alone were healthy from birth. The next child, a boy, died of heart disease; the fourth, a girl, from repeated attacks of convulsions. The fifth suffered from scrofulous phenomena from the sixth to the twelfth year; the sixth, who was the oldest of the three tabetics which form the basis of this paper, had scrofula from his tenth to his fourteenth year. The seventh died at an early age, having also suffered from scrofula. The eighth was the second of the sufferers from tabes, and never suffered with cutaneous eruptions. The ninth was premature, and was born dead. The tenth died at an early age, and had a scrofulous eruption. The eleventh had no cutaneous eruption, but showed the initial symptoms of tabes at the age of nine years. Of the three tabetics, the oldest, at the age of eleven, had a circumscribed tumor upon the left thigh which suppurated a long time. After his recovery it was observed that he walked with difficulty. Other symptoms were nystagmus, slow speech, and troubles of co-ordination in the legs and arms. The movements of the arms were exaggerated and jerky, and it was difficult for him to button and unbutton his clothes. His writing was irregular, the individual letters of each word being usually separated. His gait became unsteady, and his feet were thrown forward and backward. If he closed his eyes he would fall, unless supported.

The tendon reflexes were absent from both knees; the dynamometric force in the arms and legs was normal; there was formication upon the soles of the feet; there were no fulgurating pains, but the patient complained of the *girdle* sensation; the sensation of touch was diminished in certain areas of the body, while sensibility to pain remained normal. The muscular sense was intact, and finally there was an organic heart-lesion, consisting in aortic insufficiency. With the second child the symptoms were similar to those which were experienced by the first, excepting that there was no nystagmus nor paresthesia, and the sensibility to touch was diminished. In the youngest child the first symptom which was noticed was a kind of agitation of the entire body which was suggestive of chorea. The reflexes of the knees were diminished. After three months the knee reflexes were entirely abolished, and the patient tottered when the eyes were closed. *Archives of Pediatrics.*

The Aneurismal Diathesis.—At the March meeting of the New York County Medical Association, the president, Dr. John Shrady, read a paper in which he pointed out some of the supposed indications of a predisposition to aneurism. Every human being had within him tendencies to final decay. Those tendencies were not the same in all persons. In some, life ceased by decay advancing most rapidly in the circulatory system. They were much more prone to aneurismal difficulties than others were. There ought to be some way of recognizing at once the aneurismal diathesis, and he would point out some features which he thought were indicative of it. He would not approach the debatable ground of syphilis, nor even of rheumatism, as causes of aneurism. These two diseases were referable to disturbed nutrition, and they should not be looked upon as causing the aneurismal tendency any more than dropsy should be regarded as a disease pure and simple. In a general way, the term sanguine temperament could be applied to persons who had a tendency to aneurism. The development of the heart, and of the circulatory apparatus as a whole, also of the emotional nature in these persons, tended to an overstraining of the arterial system. The heart was large, perhaps somewhat hypertrophied from its earnest and continued work; it beat rather rapidly and forcibly. The build was square, the frame gained in height from the body rather than from the thighs; the neck was bulky and short, the face heavy and massive, the nose bulbous. The subject was muscular, with a relatively poor development of the osseous system. This diathesis might be cultivated by athletic sports, primarily overtaxing the heart and secondarily the remainder of the circulatory system. The diathesis might be latent from lack of circumstances to awaken it. The absence or retardation of the emotional temperament might altogether avert the final catastrophe. Aneurism did not occur in early life, when the glandular system was undergoing the process of evolution, and when one's vocation had not intensified and kept up the tendency to this condition. The resiliency of the organs at this time was greater, and recovery from undue taxation of the circulatory system was much more prompt than in later years.

Subcutaneous Injection of Cocaine in Surgical Practice.—In the *Vratch*, Dr. F. J. Barsky, of Kharkov, writes that subcutaneous injection of cocaine is extensively used in the clinique of Professor W. F. Grube as an anesthetic in cases of removal of superficial new growths, such as sarcomata, fibro-sarcomata, lipomata, carcinoma of jaw, epithelioma of lip, angiomata, etc.; also in cases of simple incision, scooping out with a sharp spoon, cauterization, destruction of hemorrhoids with Paquelin's thermo-cautery, radical cure of hydrocele, removal of foreign bodies (needles, etc.), amputation of fingers, evulsion of nails, rhinoplastic and osteoplastic operations, gouging out bone, etc. The result of those observations may be summed up as follows: (1) An injection of five centigrams of cocaine is sufficient to produce complete anesthesia of an area measuring from four to six square centimeters. (2) Anesthesia is complete in five to seven minutes, and lasts from twenty to thirty minutes (3) Tactile sensibility is preserved, but only to a very slight degree. (4) Artificial local anemia, produced by pressure with a drainage-tube or otherwise, seems to intensify the anesthetic effect (5) The dose used varied between one centigram (a syringeful of a one-per-cent solution), and two decigrams (four syringefuls of a five-per-cent solution), but those most often employed were five centigrams and one decigram. As a rule, the doses up to twelve centigrams did not produce any general effects; but in a nervous woman, aged thirty-eight, with sarcoma of the parotid gland, eight centigrams gave rise to formication and numbness over the body, paleness of the face, giddiness, weakness of the pulse, dryness of the mouth and pharynx, difficulty of swallowing, dyspnea, oppression in the chest, and vomiting. In a strong peasant, aged forty-five, with dry gangrene of two phalanges, one decigram produced only dryness of the mouth; twelve centigrams caused only a slight acceleration of the pulse; fifteen centigrams produced, in from ten to twenty minutes, acceleration and weakening of the pulse, dryness of the mouth, sometimes giddiness and pallor, and once a condition resembling syncope. A dose of two decigrams, in an anemic girl, aged thirteen, in whom the os calcis was scooped for caries, gave rise, in fifteen minutes, to dilatation of the pupils, and on the next day to headache and general *malaise.* (6) Inhalation of amyly nitrite (one, two, or three drops on a piece of cotton wool) seems to be the best physiological antidote to cocaine; its action manifests itself very rapidly after a few whiffs. (7) The osseous system, even in its superficial parts, is very incompletely anesthetized by cocaine. (8) Cocaine has no influence on the process of healing. (9) Cocainization presents many advantages compared with other local anesthetic agents; the chief ones being rapidity of action, ease of application, harmlessness in regard to the tissues with which the drug comes in contact, and convenience for use in regions which are inaccessible, or nearly so, to other local anesthetics. (10) Cocaine will supersede chloroform in many cases, as in cardiac or pulmonary diseases, etc., or where the use of chloroform is difficult owing to the position of the patient —for example, that *à la vache* in operating for hemorrhoids, etc. Professor Grube and Dr. Barsky have lately tried with success a combination of cocaine with morphine, as recently recommended by Professor Schnitzler.—*British Medical Journal.*

Lesions Following the Use of Antipyretic Drugs.—At the March meeting of the New York Pathological Society, Dr. Porter presented the liver and kidneys of a patient to whom large doses of antipyrine had been given, in which, as a result of the action of that drug, it was thought, extensive fatty and granular metamorphosis had taken place. The patient had had only a moderate attack of rheumatism with some elevation of temperature, for the reduction of which pretty full doses of antipyrine were given at rather short intervals. It did not seem to affect the temperature very much. After the patient entered the hospital the temperature went up to 105° F., and following the use of antipyrine it went up to 107° F. The use of antipyrine was then stopped, and salicylic acid was administered. The temperature then fell to 103° F. Antipyrine was given again, and the temperature rose again. Antifebrine was also used, but the temperature went higher and higher, and the patient died with a temperature of 109° or 110° F. The speaker had seen in literature that men who had experimented with antipyretics, such as antipyrine, antifebrine, and thalline, had found extensive changes in the liver and kidneys, and during life casts and albumen in the urine, but they maintained that it was of no practicable importance. They also had made the observation that patients treated with these antipyretics recovered less quickly, especially patients with typhoid fever, the duration of the disease being about forty-two days, whereas in those treated with other antipyretic measures, such as baths, it lasted only about thirty-two days. One writer had said that when he used antipyrine he succeeded in getting the highest death-rate, but he was inclined to think the patients were more comfortable while they lived. The speaker had noticed for some time that in the bodies of patients who had been treated with antipyrine there was very frequently granular and fatty metamorphosis of the liver and kidneys. He had therefore come to believe that antifebrine, antipyrine, and thalline were not such safe antipyretics as had been maintained.—*New York Medical Journal.*

Peristalsis and the Action of Purgatives.—Dr. Heise (*Deut. Archiv. f. Klin.*), of Munich, has obtained interesting results regarding the action of certain purgatives by introducing into the duodenum through a gastric fistula a ball which is so distensile as to occlude intestinal canal, and to which a long narrow tube is attached. This apparatus may be used to observe the rate of motion due to peristaltic action, or to limit the drug used to any point below the duodenum; and by the latter means one is able to determine whether a drug purges from its presence in the upper part of the small intestine or in the small and large intestines. The movements of the ball occur more rapidly in the upper part of the small intestine, and after the first hour or thereby the peristaltic movements become slower and irregular The movements of the ball are more rapid when it is only partially distended. The power of the peristaltic contractions has also been measured at different points by seeing what weight was sufficient to cause their arrest, the weight rapidly diminishing as we pass downwards: for example, at a distance of 18 cm. from the pylorus it required 228.5 grams; and at 50 cm. distance only 75.5 grams. Of the four substances tried on the rate of peristaltic motion—namely, sulphate of sodium, oleum ricini, infusum sennæ, and oleum crotonis—infusum sennæ was the slowest, moving only about 8 cm. in the first ten minutes, while in the case of croton oil 55 cm. were traversed in an equal space of time. The last series of experiments are those in which the drug is first administered two or three times to the animals, its effects being noted, and then the ball introduced and placed at a known distance from the pylorus, the drug again introduced, and the effects watched. In order to detect whether any of the drug is able to pass the ball, a little ferrocyanide of potassium is added to the dose, which can be readily detected in the feces. Sodii sulphas, oleum ricini, calomel, folia sennæ, oleum crotonis, fructus colocynthidis, and chlorate of sodium, when limited to the upper part of the small intestine, could not produce diarrhea, but only vomiting and increased peristalsis. When, however, the substances were introduced below the obstructing ball by way of a narrow tube through it, diarrhea was at once produced, as in cases where no obstruction existed to limit the sphere of action. By this means Dr. Heise has been able to prove conclusively that it is essential for the production of purgation that the purgatives mentioned above should come into direct contact with the lower part of the small intestine, and that it is only from their actual presence in its interior that liquid stools result.—*London Practitioner.*

INFLUENCE OF INFUSED BEVERAGES ON DIGESTION.—Dr. James W. Fraser (*Journal of Anat and Physiol.*), has studied experimentally the action of our common beverages on gastric and intestinal digestion. These are his conclusions:—(1) It is better not to eat most albuminoid food-stuffs at the same time as infused beverages are taken, for it has been shown that their digestion will in most cases be retarded, though there are possibly exceptions. Absorption may be rendered more rapid, but there is a loss of nutritive substance. On the other hand, the digestion of starchy food appears to be assisted by tea and coffee; and gluten, the albuminoid of flour, is the principle least retarded in digestion by tea, and it only comes third with cocoa, while coffee has a much greater retarding action on it. From this it appears that bread is the natural accompaniment of tea and cocoa when used as the beverages at a meal. Perhaps the action of coffee is the reason why, in this country, it is usually drunk alone or at breakfast—a meal which consists much of meat, and of meats (eggs and salt meats) which are not much retarded in digestion by coffee. (2) Eggs are the best form of animal food to be taken along with infused beverages. Apparently they are best lightly-boiled if tea, hard-boiled if coffee or cocoa, is the beverage. (3) The caseine of the milk and cream taken with the beverages is probably absorbed in a large degree from the stomach. (4) The butter used with bread undergoes digestion more slowly in presence of tea, but more quickly in presence of coffee or cocoa; that is, if the fats of butter are influenced in a similar way to oleine. (5) The use of coffee or cocoa as excipients for cod-liver oil, etc., appears not only to depend on their pronounced tastes, but also on their action in assisting the digestion of the fats.—*Ibid.*

TREATMENT OF CATARRHAL JAUNDICE.—Dr. Gluzinski, writing in a Polish journal, states that in cases of catarrhal jaundice he has found excellent results follow the treatment recommended by Krull, viz., the repeated injection into the bowel of large quantities of cold water. This increases the peristaltic action of the intestines, and removes any mechanical obstacle to the flow of bile. Again, as has been shown by Röhrig and Mosler, who injected large quantities of cold water into dogs, the bile is thus rendered both more liquid and more abundant, so that it more easily overcomes any obstruction. At first water at 59° F. is injected into the bowel until the patient complains of a feeling of distension in the abdomen. He is then made to retain it as long as possible. Most patients manage to retain two liters for from a quarter to half an hour. The next day the enema is repeated, but with water about 4° higher. The temperature is again raised on each succeeding day, but when 72° have been reached no further increase is made. The reason of the increase is that the repeated introduction of cold water is apt to irritate the mucous membrane of the bowel. Altogether four or five enemata are sufficient to produce the desired effect. The increase of the biliary secretion may be judged of by the color of the feces. Of course the diet is attended to in order to prevent a recurrence of the affection.—*London Lancet.*

COCAINE INTOXICATION.—Dr. George O. Williams (New York Medical Journal) writes as follows: An attempt was made to cocainize a robust man, fifty-five years of age, for the removal of a small vascular tumor from the forearm. Three injections were given, at intervals of five minutes. The preparation used was an immediate solution of Squibb's hydrochloride, the quantity being estimated at half a grain. The anesthesia was insufficient. Ten minutes after the last injection the patient complained of general numbness of the forearm, there was excessive dryness of the throat, the pupils became moderately dilated, vision was disturbed, even for short distances, so that he could not distinguish acquaintances at forty feet, and his gait was staggering. The symptoms did not become aggravated during the two hours that he was kept under observation, and he then drove six miles to his home. He subsequently stated that the disorder of vision and the pharyngeal dryness continued through the night, which was sleepless, and that unpleasant symptoms remained, though subsiding, for nearly a week.

THE ANTISEPTIC PAD.—At the April meeting of the Obstetrical Society of Philadelphia, Dr. Hirst exhibited the antiseptic pad used by Richardson, of Boston, and Garrigues, of New York, to prevent the entrance of pathogenic germs to the vagina after labor.

Dr. Parvin said that he was not impressed with the necessity of the antiseptic pad, believing that as good results could be had from antiseptic napkins. The oiled silk or muslin used in making it, it seemed to him, might hinder the ready escape of the lochia. After labor, the vagina is practically a closed canal, open only for the egress of uterine discharge, and disease germs can not enter unless that canal be opened by some manipulation of the nurse or the physician, as in giving a vaginal injection or in making an examination. It seems to him needless to completely close the vulva, and it also seems possible that such closure hinders the escape of the lochia. But be this as it may, if the vulva is carefully washed twice a day with an antiseptic solution, and if napkins, that have been wrung out of a 1 to 2,000 corrosive sublimate solution, are applied over it, changing them more or less frequently according to the amount of the flow, he thinks as good results can be had as by using the antiseptic pad. Moreover, it seemed to him doubtful whether antiseptic pads, though they have proved very useful in maternities, will be readily accepted in private practice, especially in the country.

In regard to the results in hospital practice from the use of antiseptics, he has no doubt of their value, and should insist upon their employment. So, too, in private practice he has used them, and has for some years, but it is only comparatively recently that he has learned how they should be used.

He objects to the glass tubes for intra-uterine injections. Take, for example, Chamberlain's, and especially that of the late Albert H. Smith, and they will be found too large for use in some cases where injections are required. Then, too, the liability of glass to break is to him a conclusive argument against the introduction of an instrument made of this material into the uterus or into the vagina. The best instrument, he believes, is Bozeman's catheter. Formerly it was his custom to wait in cases of septic infection until the flow was offensive, and then at first to endeavor to correct the condition by vaginal before resorting to uterine injections. He now knows that it is wrong, for the patient may perish or have a protracted illness, and then make but partial recovery without the lochia at any time having an offensive odor. Within a year he has seen in hospital practice and in consultation eight cases of septic infection, where the happiest results were promptly had from antiseptic solutions injected into the uterus. Most, if not all, of these patients probably would have recovered without these injections, but their recovery, judging from similar cases previously observed by him, would have been slow, possibly imperfect, and after a more or less prolonged period of suffering upon their part and of anxiety on the part of the practitioner. We have in antiseptic uterine injections the essential and the almost invariably successful treatment of puerperal septicemia, if this treatment be begun soon enough and properly carried out.—*American Journal of Obstetrics.*

PHOSPHATE OF SODIUM IN THE TREATMENT OF INFANTILE DIARRHEA.—The Therapeutic Gazette calls the attention of its readers to a remedy which, although used by some practitioners, it thinks is still neglected by many—namely, phosphate of sodium. In the summer diarrheas connected with a lack of digestive power, it remarks, in which the passages are either clay-colored or greenish, the drug often acts favorably when the ordinary remedies for diarrhea seem to irritate rather than do good. To nursing children it may be given in the milk, ten grains in each bottle, or it may be given in a little water after a meal. It should always be used in repeated small doses, and not in single large doses. It is particularly serviceable where there is habitual constipation with occasional attacks of diarrhea. It probably has some distinct specific action on the glandular organs of the intestinal tract.—*New York Medical Journal.*

PAIN AND INSOMNIA ARISING FROM GYNECOLOGICAL CAUSES.—Many women go to bed to toss restlessly about from side to side for hours. They then complain of a gnawing at the stomach, a sense of hunger. Upon satisfying this they go immediately to sleep. Now it is excellent practice in such cases to order a glass of milk and some bread and butter upon retiring. This is not going to congest the brain and create uneasiness. On the contrary there will be an anemia of the brain, because the excess of blood will be sent to the stomach to aid digestion. If they go to bed to think, and to plan over and over again the same thing, the muscular tire that comes from massage will make brain tire, and they will fall into a natural slumber. I have known some remarkable instances in which a temporary change of residence to a more stimulating climate has accomplished wonders. For the first week the patients would feel like sleeping most of the time, and their appetites would be astonishing. But I have not yet seen a case (except some of organic brain lesion) which would not yet yield to massage and electricity. Insomnia, as we see it, is only an expression of want of continuity in the physical harmony, and you can cure it by creating brain tire conjointly with muscle tire. While you are rubbing away the aches, you are setting up the very condition most conducive to sleep; that is, you are killing two birds with one stone.—*Dr. Horatio R. Bigelow, American Journal of Obstetrics.*

Napelline in Facial Neuralgia.—In a paper on napelline in facial neuralgia, M. Grognot adduced the following case by way of illustration. He stated that he was called to see a young girl suffering from severe pain extending over the entire head, which felt, she said, "as if it were pressed in a vice." The pain, however, was greatest on the right side in the parietal and frontal regions, and immediately above and below the eye it attained its maximum intensity. There were no tears, but, according to the patient, there had been in previous attacks. The tongue was slightly coated, but there were no caries of the teeth on the side affected. The author prescribed one granule, containing two and a half milligrams of napelline, every two hours. On the first day the patient took ten granules; during the evening the pain disappeared. Although the pain had not returned the next morning, the patient was advised to take four granules, and two the following day. Two months later the patient's neuralgia reappeared, and she took eight granules. The next day he found the neuralgia had disappeared, and says that since that time the health of the patient has been excellent.

Napelline is an alkaloid, obtained from the *Aconitum napellus.* An account of its chemistry appears in the Pharmaceutical Journal for 1872, p. 245. It is mentioned in the supplement to Neale's Digest. It is said to occur as an impurity in amorphus aconitum.—*London Medical Press.*

Tubercular Laryngitis.—M. Gonquenheim, for M. Hering, de Varsovie, communicated the following paper to the Société Medicale des Hopitaux. Twenty-nine cases of laryngeal tuberculosis treated by scraping. He divided these cases into three groups. (1) Nine cases of tubercle in which after one year and three months the cicatrix remained healthy. (2) Nine cases of recurring tubercle again treated by scraping, with three cures. (3) Six cases of ulceration of the nose, pharynx, and tongue. The general health was bad. In two cases there was partial cicatrization until the time of death.—*Ibid.*

Salol Poisoning.—The Berlin correspondent of the British Medical Journal reports a case of salol poisoning. The patient, a woman, suffering from chronic articular rheumatism, took twenty grams of salol in three days. She vomited almost incessantly for eight days, and her urine contained a considerable amount of phenol. After considerable experience of the drug in chronic rheumatism I found no unpleasant effects result, and in the majority of cases the relief from pain and stiffness of the muscles is very decided.—*Dr. Geo. Foy, London Medical Press.*

The Treatment of Nasal Diphtheria.—Mygind (Jour. of Laryngol. and Rhinol.; Bristol Med.-chir. Jour.) quotes Reierson as believing that the pituitary membrane forms a nidus for micrococci more readily than almost any other mucous membrane, and as suggesting, in view of the unsatisfactory results of antiseptic injections and attempts to remove the false membrane with a forceps, the insertion of bougies containing:

Cocaine hychld	$\frac{1}{5}$ gr.;
Boric acid	15 grs.;
Starch } each	$1\frac{1}{2}$ grs.;
Gum arabi.c. }	
Glycerine	a sufficient quantity.

The amounts of the active ingredients may be reduced in the case of children. A bougie is to be passed into each nostril, and pushed along until it reaches the naso-pharynx. They melt in an hour, and others may then be inserted if relief does not occur after syringing the nostrils.—*New York Medical Journal.*

Morphine and Cocaine in the Treatment of Tetanus.—Sober (*Genio méd.-quir.; Gaz. hebd. de méd. et de chir.*) records a case of idiopathic tetanus in which a five-per-cent solution of the hydrochlorides of morphine and cocaine was used hypodermically with success. After three injections had been given (amount not stated), the trismus was diminished and the patient was able to execute certain voluntary movements. One additional injection, on the following day, was followed by complete recovery.—*New York Medical Journal.*

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. IV. SATURDAY, AUGUST 20, 1887. No. 4.

D. W. YANDELL, M. D.,
H. A. COTTELL, M. D.,
D. T. SMITH, M. D., - - - Editors.

A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

Books for review, and all communications relating to the columns of the journal, should be addressed to the EDITORS OF THE AMERICAN PRACTITIONER AND NEWS, Louisville, Ky.

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440 to 446 West Main Street, Louisville, Ky.

INTERNATIONAL MEDICAL CONGRESS.

In something more than a fortnight a great, perhaps the greatest event in American medicine will have passed into history. A meeting of representative physicians and surgeons from all parts of the civilized world is, in any land, an affair of large social and scientific significance. In America it is this certainly, and probably much more. Professionally, as a rule, we have not been held in the highest esteem abroad, and even at home those who have some acquaintance with the state of the profession in Europe seem disposed to submit us to unfavorable comparisons.

The securing of this august assemblage in our land was therefore hailed as the one grand opportunity for giving our foreign brethren a correct view of the status of general and medical culture in America.

But unfortunately more than one adverse force has impeded the work begun under auspices so favorable. First, Germany felt that she had been slighted through the prejudices of the French physicians in favoring America rather than Germany in the selection of the place of meeting. Then followed our own lamentable dissensions, which have borne no end of evil fruit.

Fortunately for the Congress the three principal offices, those of president, secretary general, and chairman of the reception committee, have fallen into the hands of men acceptable to all parties, whose timely and judicious labors have done much to allay bitterness, if not to undo all mischief.

Be the issue what it may, the Congress with its golden opportunity is upon us. At its close we shall have made upon the foreign professional mind an impression which, perhaps for a generation, may not be altered or effaced. Let us hope it will be such as no lover of his country and of his calling can fail to contemplate with pride.

BASE-BALL PLAYERS AND INJURIES.

It is frequently a subject of remark that base-ball players and other athletes recover much sooner from injuries than people engaged in ordinary pursuits or leading an inactive life. Cuts, sprains, bruises, and even dislocations and fractures about the hands of base-ball players, it is said, give greatly less than the average inconvenience and trouble.

The natural inference is that the development produced by the peculiar nature of their employment results in the highest degree of tissue health and the greatest amount of recuperative power.

This would seem to be in line with the results of injuries of the heart muscle. Most traumatic lesions of the heart prove fatal after a time, but many severe injuries of that organ have been observed that have existed long enough before death for inflammation of the muscular substance to occur, according to the rules observed in other muscles, and yet inflammation has occurred in the smallest number of cases.

An abscess in the walls of the heart is almost unknown. It is obvious that no other muscle in the system is so universally well developed as the heart. In health it is exercised just to that degree probably that secures the greatest amount of recuperative power.

The lesson of all this is not without its significance. Nor is its application limited necessarily to traumatism. The invasion of tuberculosis may be forestalled, and the severity of pneumonia and various other diseases may be favorably influenced by a proper previous exercise of the functions of the organs involved.

CURETTING THE UTERUS.

Many procedures that are most excellent in the hands of skillful operatives, and under favoring conditions, are found to a large degree impracticable under ordinary circumstances.

A marked example of this is the question of scraping out the uterus after parturition. The skilled obstetrician in lying-in hospitals, or where he can avail himself of intelligent aid, may resort to this with much advantage and satisfaction to his patient, but in the average family, in private practice, such a procedure is quite out of the question. Consent of the family is reluctantly given, and attention is seldom what is desired, while one who has occasion to curette the uterus only a half dozen or so times in course of his entire experience will be apt to be wanting in the preparation and skill requisite to its safe and proper performance. Under such circumstances it would be hardly amiss to keep out of view the prospect of a resort to such measures, and to depend upon precautions that every one can take. If the secundines are removed with care, and carefully examined after removal to be sure that no part is left behind, and then the vagina washed out and kept clean with antiseptic lotions, it should be an extremely rare event for either intra-uterine irrigation or curetting of the uterus to be required.

Cocaine as an Antidote to Strychnine. Bignon (*Genio Méd. quir.; Gaz. hebdom. de Méd. et de Chir.*) finds, as the result of experiments on dogs, that hypodermic injections of cocaine, kept up until the strychnine has been eliminated, prevent a fatal result in cases where the dose of strychnine administered is not excessive, and retard it when large doses are used.—*New York Medical Journal.*

Notes and Queries.

Editors American Practitioner and News:

A Case of Poisoning by Aconite.—(By the victim.) On the 14th day of last February, after a day of great worry and fatigue, the writer returned home about five o'clock in the afternoon with quite a severe nervous headache, and thought he would take a dose of his usual remedy for such attacks, tinc. aconite, ♏ vj to x, in half a glass of water in divided doses, one third at a time, at ten minutes' intervals. The glass was procured, but on my way to the office I remembered that I had received a sample of fluid aconite a few days before for trial; this being at hand, I concluded to try it. Accordingly I poured about eight or ten drops in the glass, filled it about two thirds full of water, and drank at once about two thirds of this quantity. I then sat down to read and rest for the first time since early morning. I read for perhaps ten or fifteen minutes when I noticed that my lips felt swollen and numb, but I had experienced these sensations slightly before, and, thinking no more of it, went on reading. In a few minutes more I noticed that the toes and then the feet began to feel numb and to have a tingling sensation, which was soon followed by similar sensations in the fingers and hands, and shortly after in the external ears. Then I realized that I had taken an overdose of aconite, and, calling my two daughters, told them of the fact, asking one to prepare a very strong cup of coffee, and the other one to look up the antidotes for aconite. This was about five o'clock in the afternoon. In the meantime a slight perspiration appeared on my brow Noticing this I arose and tried to walk, in the hope that perspiration would thereby be increased. About this time the strong coffee was brought and drank. I noticed that I staggered somewhat in walking. I had no pain or dizziness, but loss of muscular power, and only slight confusion of thought. I could not comprehend what my daughter read to me as the antidote. I refused to take an emetic, thinking the poison would soon be eliminated as I was perspiring freely. Just here I got very sleepy and could not stand. I begged to be let alone, saying that I would soon sleep off the attack. In the mean time my daughters, against my desire, gave me about one dessertspoonful of whisky, followed soon by a tablespoonful of hive syrup. At this time a nephew appeared, who, on learning the trouble, proposed to go after Dr. Stalker, of New Providence. I feebly remonstrated, saying that I would soon be over it. At this point I became unconscious. The rest of the story is from the observations of Dr. Stalker and the family.

The stupor was so profound that I could not be roused. The extremities grew cold up to the body, and became rigid. The pupils were insensible to light, the eyes staring, and jaws fixed. They had to be pried open when medicine was given. The pulse was not perceptible at the wrists, and only a very feeble action could be perceived in the heart. This was the condition at 10 o'clock at night when Dr. Stalker arrived. The remedies given had had no visible action. Sinapisms, hot water, frictions, etc. were used freely. Dr. Stalker sent at once for Dr. Bright, of Martinsburgh, while he proceeded to give emetics which could yet be forced down by prying open the mouth and stimulating injections per rectum. Continued heat, frictions, sinapisms, etc. After two hours of seemingly hopeless work the efforts of Dr. Stalker were rewarded by full, free, and unconscious emesis, and evacuations from the bowels, upon which the pulse became perceptible, the blood returned to the surface, the breathing became deeper, and the general appearance better. About this time Dr. Bright arrived, and on consultation regarded the case as hopeful, and advised the continued use of stimulants. About 2:30 o'clock in the morning I became conscious of noises, but every thing was confusion. I noticed from this on that consciousness was returning in waves, that is, I would relapse into unconsciousness every few minutes, then become conscious as with a swinging wave-like motion. I had no remembrance of marked suffering or pain of any kind, but only a great desire to sleep just as I lost consciousness. On waking I had a burning, raw sensation in the throat and a slight pain over the left eye, all of which in a few hours passed away, and I was myself again, barring the remaining effects of the very vigorous counter irritation to which my limbs had been subjected.

I had taken about eight or ten drops of concentrated fluid extract of aconite instead of the same amount of the ordinary tincture of aconite. The specimen I took was not properly labeled, hence the mistake.

PEKIN, IND. T. H. P. BAKER, M.D.

Editors American Practitioner and News:

I would like to put some facts before the profession for the purpose of bringing light upon the causation of diphtheria. Once, while in a pigeon nesting of wild pigeons, I found some sick birds on the ground; I picked them up and inspected them carefully, and found the cause of their sickness to be ulcerative sore throat with a pseudo-membrane, in fact, to all appearances, diphtheria. I examined a good number both dead and alive. My dissections were made with a pocket-knife which I had at last to throw away, being unable to get the odor of the disease off of it. There were millions of pigeons in the nesting, and they were hunted and eaten by the inhabitants of an area comprising several counties.

Now it is noteworthy that this same year, about the time the pigeons began to nest, diphtheria broke out in its most malignant form, carrying many of our younger people away. I then found out that several years before the wild pigeons had nested near us and that we had lost fully one half of our children at the same time from diphtheria. Several times since that I have been consulted in regard to sore throat of pigeons, mostly tame pigeons, and I find that when diphtheria breaks out in a place it almost invariably does so where they have tame pigeons, spreading from such points.

Now I want to ask the profession if these observations are matters of coincidence, or is diphtheria a disease of fowls and particularly of pigeons, and does it spread from pigeons, tame and wild, to the human family?

Those I have cut open, both tame and wild, have had the exact smell of diphtheria, but I did not have the advantage of a microscope. If some one who has the time and opportunity will take this up and carry it through, I feel certain that he will find an important relationship existing between pigeons and the spread of diphtheria among men. F. T. WHEELER, M. D.

ROSCOE, SULLIVAN COUNTY, N. Y.

INTERNATIONAL CONGRESS—GENERAL PROGRAMME OF THE CONGRESS.—As there appears to be a very general desire, both at home and abroad, to have the programme of arrangements for the meeting of the International Medical Congress made public, I herewith submit the formula therefor determined upon by the committee of arrangements intrusted with that duty.

First Day—Monday, September 5th. The Congress will assemble at Albaugh's Opera House at 11 A. M. and will be formally opened by the President of the United States, to be followed by a short address of welcome by the Secretary of State; Address by the President of the Congress; Report of Secretary-General and Chairman of Committee of Arrangements. Adjourn at 1:30 P. M. From 3 to 6 P. M. meeting of the Sections at their respective halls. Evening *conversazione* at U. S. Pension Hall from 8 to 11 P. M.

Second Day—Tuesday, September 6th. Meeting at 10 A. M. at Albaugh's Opera House. General addresses by Drs. Flint and Semmola. Sections will meet at 11 A. M. and adjourn at the same hour with Congress at 1 P. M. In the afternoon the Sections will meet from 3 to 6 P. M. In the evening it is expected that a reception will be given by the President of the United States, and the Corcoran Art Gallery will be thrown open to the members and their families.

Third Day—Wednesday, September 7th. The Congress will meet at 10 A. M. General addresses until 1 P. M. The Sections will meet as usual at 11 A. M. and adjourn at 1 P. M. Afternoon meeting of the Sections from 3 to 6 P. M. Evening reception to the members and their families by the citizens of Washington.

Fourth Day—Thursday, 8th. General meeting at 10 A. M. Addresses, if not previously delivered. Meeting of the Sections at 11 A. M.; adjourn at 1 P. M. Afternoon, Sections meet from 3 to 6 P. M. General reception, buffet banquet, at U. S. Pension Hall from 8 to 11 P. M.

Fifth Day—Friday, 9th. General meeting at 10 A. M. Transaction of business affairs of Congress. Meeting of Sections at 11, and adjourn at 1 P. M. Afternoon, Sections meet from 3 to 6 P. M.

Sixth Day--Saturday, 10th. General meeting at 10 A. M. Adjourn at 11 for visit to Mt. Vernon.

On Sunday or Monday, the day not yet determined upon, an excursion train will leave Washington with the foreign members and their families for Niagara Falls, under the escort of a part of the Committee of Arrangements, selecting the route which will afford our foreign brethren an opportunity to see some of the most interesting and thrifty portions of our country, as well as very beautiful scenery.

In completing the details of this programme it may be necessary to make some slight modifications.

I send herewith an important communication from the Chairman of the Sub-Committee on Transportation, Dr. J. W. H. Lovejoy.

ALEX. Y. P. GARNETT, M. D.,
Chairman of Committee of Arrangements.

Railway Rates to Washington. The Railroad Associations which have already agreed to make a reduction of fare for members of the Congress and their families on the roads under their control are:

The Trunk Line Association.

The Central Traffic Association.

The Newport News and Mississippi Valley Company.

The Southern Passenger Association.

These cover the greater part of the territory east of the Missouri and Mississippi rivers. The whole list of roads controlled by these Associations is too large for publication, but members can obtain all the necessary information by application to the railroad agent at the starting point. It will be required to pay full fare to Washington, and a return will be allowed for "one-third the highest limited fare" on the Association's certificate. It will be necessary for these certificates to be procured before starting and have upon them the receipt of the railroad agent for the full fare to Washington. Members intending to attend the Congress should, as soon as possible, make application to the undersigned for blank certificates of the Association over whose roads they intend to travel, and the blanks will be forwarded at as early a date as they can be obtained. A separate certificate will be required for each person.

J. W. H. LOVEJOY, M. D.,
Chairman Transportation Committee.
WASHINGTON, D. C., No. 900 12th St.

MATERNAL IMPRESSIONS.—There is an aspect of this question to be considered, and that is not the influence of mental impressions or conditions upon the mother, but the effect of these upon her unborn offspring. That the latter may be affected through the mind of the former is a belief which has been held for hundreds of years, not merely by the common people, but by some of the wisest philosophers and physicians. Quite recently a distinguished German philosopher, Lotze, has made the following statement: "That the phantasy of the mother can impart to her child the features of a picture that has made a strong impression on her. I can not regard as impossible, in view of undeniable facts."

Those who are skeptical in regard to an influence being thus exerted should read the very interesting paper upon the subject by Dr. Fordyce Barker, and the remarks made by Dr. Busey, both being found in the last volume of the Transactions of the American Gynecological Society.

We may reject many of the cases adduced as evidence of "maternal impressions," because they are mere fables, or otherwise more readily explained; nevertheless there still remain a large number which can not be cast aside, and the simplest explanation is that which has been proposed. Of course, those who deny this influence rest their argument chiefly upon the fact that there is no nervous connection between the mother and the child in her womb, no nerve-paths along which impressions may travel from her brain to it. But the first duty of science is to ascertain facts, and not reject them because we do not see how they are caused. It is well known that mental emotions may cause most injurious changes in the mother's milk, changes which neither the microscopist nor chemist has revealed, and that similar influences may affect the blood. As the fetus is nourished solely by the mother's blood, why may not changes in this nutritive material caused by mental influences modify the structures and parts built up from it? But even independently of this partial explanation, is it not possible, nay, probable, that the soon-coming years have as marvelous mysteries in the psychical world waiting revelation as any of the wonderful manifestations of science made in the last half century? One of the greatest poets of ancient times said: "There is a path which no fowl knoweth, and which the vulture's eye hath not seen: the lion's whelps have not trodden it, nor the fierce lion passed it by." Admitting the existence of a spiritual world, there may be many paths which no human eye hath seen.

The extraordinary facts of telepathy, and too many of these have been collected by reliable and reputable observers to be explained away as mere coincidences, seem to render possible the hypothesis that impressions can be instantly conveyed without nerve transmission.

But without proposing any theory as to how impressions upon the mother's mind may affect the fetus, it is not wise to reject a belief so long and so generally held by the public, and especially, as before stated, commanding the assent of many eminent philosophers and physicians.

Admitting, then, this truth, it is of the greatest importance that a woman should during her pregnancy be guarded against all injurious impressions; all mental shocks, all severe trials, all rude disturbances of her mental, her moral, or her emotional nature. More than once it has seemed to me I could read in the sad and gloomy disposition of young man or woman the reflex of a gloom which hung over the mothers when they bore them within their wombs.

When the artist makes the sunlight his painter the sensitive plate must be undisturbed, and no object intervene between that which is to be represented and the surface of representation, or the picture is a failure. May not the billions of brain-cells be as sensitive in their formative stage, and impressions then be made which are lasting as time? No one can consider these marvelous mysteries of human creation without reverential awe. Lo! here, as Kingsley has said, is one of the commonest and one of the deepest things in the world, the mystery of mother and child. And whether that child be waiting for the fullness of time, or having completed its days is clasped in her arms of abounding love,

> "A mother is a mother still,
> The holiest thing alive."

Dr. Theophilus Parvin, Annals of Hygiene.

Do Stove-pipe Hats Make Bald Heads? I believe the common form of baldness is due entirely to the kind of hat that is worn, principally to the high hat and the hard felt hat, but also to any other head-covering *that constricts the blood-vessels which nourish the hair-bulbs.* To have a clearer understanding of this, we must remember that the scalp is supplied with blood by arteries at the back, sides, and front of and lying close to the skull, which diminish in size by frequent branching as they converge toward the top of the head. They are in a most favorable position to be compressed, lying on unyielding bone and covered by thin tissue. Consider what effect must be produced by a close-fitting, heavy, and rigid hat; its pressure must lessen to a certain extent the flow of arterial blood, and obstruct to a greater extent the return of the venous; the result being a sluggish circulation in the capillaries around the hair follicles and bulbs, a consequent impairment of nutrition, and final atrophy. This pressure is not trivial or imaginary, as any one will admit who has noticed the red band of congestion on the forehead when a hard hat is removed after moderate exercise.—*W. C. Gouinlock, Popular Science Monthly.*

Use of Some New Remedies.—Osmic acid—best administered in pill form (made up with Armenian bole). The dose is $\frac{1}{60}$ grain, which may be repeated several times a day. Used in epilepsy and sciatica Agaricine—best administered in combination with Dover's powder. Dose $\frac{1}{12}$ to $\frac{1}{6}$ grain. Used for night-sweats. Aloin—from $\frac{1}{3}$ of a grain to $3\frac{1}{2}$ grains in pill form. Antipyrin—dose from 75 to 90 grains, divided into three portions, one of which is to be taken every hour. Bismuth salicylate—dose 5 to 7 grains, in pill form. In typhoid this dose may be doubled and repeated every hour up to ten or twelve times. Cannabinoin—from $\frac{2}{3}$ to $1\frac{1}{2}$ grains. Best administered mixed with finely ground coffee. Sedative and hypnotic. Colocynthin—used subcutaneously. The dose is from $\frac{1}{6}$ to $\frac{1}{2}$ grain. It may also be administered in pill form by the mouth, the requisite dose being from $\frac{1}{3}$ to 1 grain. Convallaramine—internally, in pill form. The dose is from $\frac{3}{4}$ to $1\frac{1}{4}$ grains. Euonymin—best given in pill form, combined with extract of belladonna or hyoscyamus. The dose is from 3 to 10 grains. Nitro-glycerin is best given in alcoholic solution. The dose is from $\frac{1}{150}$ to $\frac{1}{60}$ grain, repeated several times a day. Rossbach prefers ether as a solvent. His formula for its use is as follows: Dissolve $1\frac{1}{2}$ grains of nitro-glycerin in sufficient ether, and add the solution to a mixture consisting of 2 ounces of powdered chocolate and 1 ounce of powdered gum arabic. Mix very thoroughly and divide into 200 pastilles. Each pastille will thus contain $\frac{1}{333}$ grain of nitro-glycerin. Used in angina pectoris, and as a diuretic. Picrotoxine—in aqueous solution. Dose from $\frac{1}{8}$ to $\frac{1}{6}$ grain. Used in epilepsy. Sulphate of thallin may be given dissolved in wine or water (with some corrigerant). The dose is from 4 to 8 grains, or 1 grain every hour.—*London Med. Record.*

Phenol-Mercury.—A new mercurial preparation has been lately introduced which bears the name of phenol-mercury. It is given in pills containing 0.02 gram, of which the dose is at first two, increased to six daily. Stomatitis is said to be only rarely produced by its administration. Phenol-mercury is prepared by mixing an aqueous solution of one hundred and thirty-two parts of phenol-potassium with one of two hundred and seventy-one parts of mercuric chloride, when a reddish-orange precipitate is thrown down. This is washed on a filter until the filtrate no longer gives a reddish color on the addition of potassium iodide. In drying the color becomes lighter, and the powder retains only a faint odor of phenol. The phenol potassium mentioned above is made by mixing alcoholic solutions of ninety-four parts of crystalline carbolic acid and fifty six parts of caustic potash, and evaporating to dryness. It is a hygroscopic compound and difficult to keep, and should therefore be freshly prepared when required.—*Provincial Medical Journal.*

Caution Concerning the Use of Blisters. J. Comby (*Progr. Méd.; Ctrlbl. f. Kinderh.*) reports the case of a child, two years old, which, having been attacked with double bronchopneumonia in the course of measles, was treated by the application of two large blisters, one of which was kept on for six hours and the other for four. A fortnight afterward the surfaces to which they had been applied were occupied by large suppurating and gangrenous sores, and the child died three days subsequently. In the author's opinion its death was hastened by the blisters, and he adds the general warning that blisters should be used only with the greatest caution in children, especially where from the nature of the disease there is reason to apprehend the supervention of a diphtheritic complication, and never in children's hospitals.—*N. Y. Medical Journal.*

Antifungin.—A white, sweet-tasting powder, said to consist of a soluble borate of magnesium, prepared by a special process, has been introduced under the name "Antifungin" as possessing extraordinarily powerful disinfecting properties, and as being a specific against diphtheria. It is said to be soluble in four parts of boiling water, and it is used in the form of a fifteen-per-cent solution. From five to twenty drops, according to age, are administered every one or two hours, and about a tea-spoonful is sprayed hourly in the sick-chamber. Further, the diphtheritic growth is painted with the solution every one or two hours until it disappears.—*American Druggist.*

Iodol as a Substitute for Iodoform.—The use of iodoform in the treatment of various disorders of the upper air-passages has become exceedingly common. Valuable as the drug is in many cases, its disagreeable odor and sickening flavor are most objectionable, and thus far all efforts to disguise them have proved more or less unsuccessful. An efficient substitute for it, therefore, devoid of its unpleasant qualities, will be welcomed alike by the physician, whose premises and person have been perfumed by it, and by patients, whose appetite it has destroyed. That such a substitute has been found seems probable from the success that has attended the use of iodol, a drug lately introduced, concerning which an excellent article, by R. Wolfenden Norris, is to be found in a recent issue of the Practitioner. According to this author, iodol is very rich in iodine, containing only seven per cent less than iodoform, and parting with it more readily. It is said that no toxic symptoms follow on its continued use, and it is therefore to be preferred, not only on that account, but also because it possesses neither flavor nor odor.

It has been found to be a valuable application for the mouth, the pharynx, the larnyx, and the nose in all cases in which ulceration exists, whether tuberculous, syphilitic, or malignant. The following preparations are recommended : (1) Insufilations of the pure powder. It is stated that, in using these, it is more important to cover the diseased localities than to measure the amount of the drug applied. (2) Mazzoni's solution (1 part of iodol, 16 parts of alcohol, and 34 parts of glycerin) ; for application with a brush or in the form of a coarse spray. (3) A mixture of 1 part of iodol, 1 part of glycerin, and 7 parts of vaseline ; for application with a brush. (4) Pastilles containing 1 grain of iodol, 1 minim of glycerin, and 18 grains of glyco-gelatin. (5) A solution of 1 part of iodol in 8 parts of ether ; for application with a brush or in the form of a spray. (6) Bougies, each containing half a grain of iodol, for use in the nasal passages. (7) A ten per-cent iodol wool, for tampons, etc. (8) Iodol gauze, for dressings.—*New York Medical Journal.*

Diphtheria of the Conjunctiva.—Alt (Am. Jour. of Ophthal.) reports nine cases of sporadic conjunctival diphtheria, observed at a time when faucial diphtheria was very prevalent in St. Louis. In one case the eyes had been for months exposed to the vapors of bromine, while in another case an operation had been performed, and was followed by the infection. In the cases which came under his observation when the diphtheritic membrane was still limited, or during its development, he treated the lids with silver nitrate, thinking that the coagulation of the albuminous masses would act virtually as an antiseptic, and the results were in the main satisfactory. The quickest and best results were obtained by keeping up a continued antisepsis by instillations of corrosive sublimate and boric acid.—*Ibid.*

THE COCCUS OF PHLYCTENULAR KERATITIS. Burchardt (*Ctrlbl. f. prakt. Aug.*) has found in corneal phlyctenulæ a coccus which corresponds very nearly to the *Coccus flavus desidens* described by Flügge. It is somewhat smaller than the *Coccus pyogenes aureus*, and does not appear in any considerable number in the vesicles. It is probable that this coccus is the constant and only cause of phlyctenular conjunctivitis and keratitis. The best method of treatment in these cases is to cauterize the corneal vesicles with the galvano-cautery.—*Ibid.*

MACKENZIE'S FEE.—Some inventive news-gatherer has started into circulation the report that Dr. Morell Mackenzie's bill for treating the Crown Prince is $13,000. Monarchies may have their faults, but it is perfectly safe to say that Dr. Mackenzie and his colleagues will be better rewarded than were the surgeons who took care of President Garfield.—*Medical Record.*

CARBOLIC ACID IN THE TREATMENT OF PUERPERAL SEPTICEMIA.—According to *Nouveaux Rèmedes*, Sviedey recommends a pill containing a grain and a half of phenic acid, with a mixture of equal parts of gum arabic, powdered licorice, and soap—from two to ten such pills to be given in twenty-four hours —*N. Y. Medical Journal.*

INTERNATIONAL CONGRESS.—Round trip tickets from Washington or Niagara Falls to California will be issued to foreign and American members of the Medical Congress at the rate of $90, or less than the usual railroad fare one way. The Pullman sleeping car for the trip is $14 additional.

FOR SCIATICA.—A prescription frequently used in Prof. Dana's clinics is as follows:

Olei gaulth .... } āā 4 dr.;
Olei terebinth .... }
Syr. acaciæ... ....2 oz ;
Aquæ cassiæ. ....q. s. ad. 3 oz.

M. Sig: One dram three or four times daily.

RAW mutton can be safely eaten, according to M. Chatin, of Paris, since it never contains parasites, at least in dangerous amount. It is a safer raw food, therefore, than beef or pork.

THE NASHVILLE MEDICAL NEWS.—The publication of this journal, which was edited by Dr. Richard Douglas and Dr. John W. McAlister, has been discontinued. The journal was a bi-weekly.

YELLOW FEVER.—The medical officer in charge of the Marine Hospital Service at Key West (Passed Assistant Surgeon John Guitéras) reports a total of 208 cases and 44 deaths up to the 4th instant.

A BRANCH of the British Medical Association has been formed in Halifax, under the name of the Nova Scotia Branch of the British Medical Association. This is the first branch of the Association in North America.

SECRETARY OF STATE BAYARD has consented to deliver an address of welcome to the Ninth International Medical Congress.

SPECIAL NOTICES.

THE Phosphates of Iron, Soda, Lime, and Potash, dissolved in an excess of Phosphoric Acid, is a valuable combination to prescribe in Nervous Exhaustion, General Debility, etc. Robinson's Phosphoric Elixir is an elegant solution of these chemicals. (See advertisement in this issue.)

SPECIAL attention is directed to the new advertisement of the Seabury Pharmacal Laboratories (Seabury & Johnson), New York, in this issue, setting forth the claims of Hydronaphthol, the new antiseptic which they offer the Profession. Physicians will please remember that while Hydronaphthol bears a striking resemblance to Beta-naphthol in physical appearance, it is entirely different in chemical composition and therapeutic effect, and therefore it is all important that Beta-naphthol be not substituted when Hydronaphthol is ordered or prescribed.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. IV. LOUISVILLE, KY., SEPTEMBER 3, 1887. No. 5.
[NEW SERIES.]

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

SOME OF THE PSYCHOLOGICAL AND PATHOLOGICAL INFLUENCES OF SELF-CONSCIOUSNESS.*

BY JOHN GODFREY, M. D.
Surgeon United States Marine Hospital Service.

The phases of mental processes as exhibited in every-day life can hardly fail of interest even to an indifferent observer. To note the varying effect of certain impressions as regards man's moral and physical status, to watch the modifications as they arise, and at the same time attempt to find the key and reason therefor, must be fit study for the most profound psychologist. The modifications in mental impressions occurring from time to time affect men not only individually but collectively, extending to communities, and sometimes to nations. As a subject, it comes within the purview of the statesman, the moral philosopher, the political economist, and particularly within that of the sanitarian, since he occupies a plane eminently above that of the others. I speak thus because I know you will be able to see that preventive medicine could be easily included in the scope of my paper. Moreover, it must necessarily take in the science of prognostics.

After a tolerably large experience in watching the course of disease, I have been impressed with the conviction that results are measurably modified by the self-consciousness of the patients. Let me explain somewhat my meaning. Some persons are so constituted that they are unable to forget themselves in any circumstance. You may notice in walking the street with one person, for instance, that he is simply concerned in observing those whom he meets; while another, on the contrary, is occupied in observing what they think of him. Again, notice a number of young people at play. The majority, perhaps, will be absorbed in trying to win the game. A few, on the other hand, will be watching for the effect they make on the by-standers. Roughly speaking, this is called egotism, but that is hardly the correct term. Egotism presupposes a volitional holding up of the individuality, while self-consciousness is merely the exhibition of almost unconscious tendencies. The most refined, modest, and least egotistical of women may be painfully self-conscious.

If you look carefully you will find this characteristic in the sick-room, and when found it ought to be humored. Every one of us has heard questions like these: "Doctor, don't you think I give mighty little trouble? Did you ever know any body to have a disease like mine?" We feel inclined to snub people that talk thus, but it would be unwise to do it. Such questions are the outcome of natural characteristics as much a part of the patient as the color of his hair.

Self-consciousness not only belongs more largely to some persons than to others, but to some communities, and even to some nations; and it is safe to say that those persons that take least cognizance of symptoms during sickness are, other things being equal, aptest to get well. In some respects it depends largely upon mental culture, but in this connection more upon a natural or acquired racial submissiveness of spirit. In my experience the Chinese and the Turks make the best patients.

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*Read before the Louisville Medico-Chirurgical Society, July 1, 1887.

After them come Portuguese and Spaniards. Next the negro, being handicapped somewhat by his emotional nature. Of the Indian I know too little to speak. The Irish and Germans make poor patients. The English, strange to say, make fairly good ones, better than Gypsies, perhaps on account of the bull-dog tendency to resist whatever assails them. The worst patients are Americans, especially New Englanders. A genuine Yankee tries to subject every step of your treatment to a complete ratiocination, and will use up enough tissue in thinking over the effect of the last dose of medicine to help him well on toward recovery.

Of course you do not understand me to say that, as between Turks and Americans, the latter are less apt to get well of wounds or disease. But I do mean to say that, given the apathy or acquiescence of the one, plus the pluck and resilience of the other, and we would have for purposes of cure material vastly improved in character. Constitutions being equal, the patient that lies in a state of negativeness, opening his mouth like a young robin for whatever is offered, has much the advantage of the one that uses his brain, speculates about his symptoms, watches the doctor's face, and wishes to know the range of his temperature.

I come now to the main purpose of these remarks, which is to call attention to two phases of self-consciousness, and to make merely some suggestions as to cause. They relate to maternity and to epidemics.

In regard to the first, while not universal, the belief is generally prevalent that the maternal instinct is diminishing among women of the higher classes. Hypotheses count for nothing against solid facts, to be sure, but in the absence of the latter there is warrant for the opinion that intellectual and nervous development are at the expense of the maternal instinct. Among civilized nations the higher the culture the fewer the children, is a proposition safe enough to submit to investigation. The duchess rarely, if ever, equals the peasant woman in fecundity. "Fool for luck and a poor man for children" is a proverb of long standing, and it surpasses most proverbs in one respect—one half of it is true. The fecundity of the negro, for example, is sufficient to offset his unusual death-rate. These statements being admitted, it is in order to give the reason, or rather since that has already been suggested, to amplify it somewhat.

If we survey the whole field, group all the signs and analyze such mental processes as affect this question, in order to make a general deduction, I think we will reach the conclusion that, as the perceptive faculties are quickened, as individuality becomes more differentiated, as there is a clearer conception of personality, a keener realization of *self*, a more vivid separation of the *I* from the *we*, all dependent upon progressive mental development and the evolution of a finer nervous organization, there will be found to be a shrinking from, and a general disinclination to encounter whatever portends bodily harm. Many have come to so look upon child-bearing, and in consequence all sorts of ways are used to avoid it. I am not referring to induced abortion, nor feticide, nor dislike to be burdened with family cares, but simply to the growing objection to face squarely the pangs of travail and the possible mishaps of pregnancy.

Time was when Christian women believed that to multiply and replenish the earth was to obey a divine mandate; but the belief is waning daily, and just in proportion as it wanes and the matter is regarded from a personal standing-point, just so, through the agency of introspection and self-consciousness, will what was once accepted without thought and as a matter of course be regarded with sentiments bordering closely upon repugnance. And if there were no contravening causes it would be pertinent to ask how long will it take for this repugnance to become universal?

Next, in regard to epidemics. It is fair to start with the statement that men are more humane, more solicitous about each others' troubles, in a word, better than they have been in other stages of the world's history. How, then, are we to account for the panic and widespread inhospitable fear that overcome communities and states in seasons of epidemic disease? The history of the plague has come down to us. We know the story of its horrible ravages. We have it in part from eye-witnesses; but we learn of no such exhibition of wholesale fright and flight as may be seen nowadays. It is no argument to offer ignorance of sanitation and quarantine. Ignorance was not so great but that one could perceive safety in fleeing. The times were rude. Might and right were more nearly synonymous than now; neighborly regard was not altogether a shining virtue, yet men hung together and died in numbers that would appall and paralyze any civilized nation of to-day.

Giving due weight to church teachings and the well-nigh universal belief in providential visitation, we must seek the true reason in the fact that the personal equation was then a factor of small degree. Human beings were less introspective, although less altruistic. Self-consciousness lacked its present development.

As one phase of the subject, however, we should bear in mind that different epidemic diseases produce different mental effects, partly explainable on simpler grounds. For instance, in smallpox men's fears are lulled to some extent by the protective power of vaccination. In scarlet fever, measles, diphtheria, it is only a fraction of the community—the children—that is liable to much danger, and it is expecting too much of human nature to suppose that it will exercise the same precautions for a fractional part, no matter how dearly that part may be prized, as for the whole. In cholera we trust in some measure to sanitation and correct regimen. In yellow fever we realize that old and young, little and big, are equally liable to be smitten. The strong have no more chance than the weak. The one safeguard is flight, and the history of the last decade shows that men have thoroughly learned how to use it. Wherefore? Not from lack of humanity. Not on account of cowardice. It is easy to show that human courage has absolutely no limit. Men face the deadly armaments of to-day as unflinchingly as Cæsar's legions faced the spears of the Gauls. Again, as in the other case, we must seek the answer in the personal equation. Self-consciousness has increased, mentality grown alert. Dangers that threaten and can not be conquered are dealt with through personal application. It is not so long since yellow fever provoked no greater consternation than smallpox does now. Less than twenty years ago I remember being in Key West when yellow fever broke out there. I remained three weeks, and recollected some time later that the fact was cognizable in precisely the same way as it would have been had the disease been typhoid fever. The fact that it made no impression on me at the time has given rise to the thoughts which I am briefly and crudely trying to lay before you now. That the report of yellow fever could make no impression on any one at the present day is simply impossible, and yet the danger is perhaps less than it was in the days referred to. I see no escape therefore from the conclusion, that while men are no more cowardly, no more inhuman, no more afraid of death when it has to be met than they were a few decades ago, nevertheless they are quicker to calculate its liabilities, and prompter to seek means of escaping it. The explanation has already been attempted.

As regards the outcome, in some respects it promises favorably. Self-consciousness developed along this line betokens improvement in sanitation, co-operation in systematizing the details of State medicine, especially those that relate to the prevention of disease.

LOUISVILLE, KY.

HYPERTROPHY OF THE THIRD OR PHARYNGEAL TONSIL, WITH AN INTERESTING CASE.

BY W. CHEATHAM, M. D.

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As to the location and make-up of this tonsil, the existence of which but few general practitioners of medicine are aware, Cohen says:

"This tissue is very distinct in some subjects, less so in others, but it is constant. It usually presents in the form of irregular longitudinal prominences, separated by shallower or deeper fissures, and distinctly studded with minute whitish follicles, less in size than poppy seeds. A number of round pores are likewise observed, the orifices of acinous glands, and in part also depressed follicles. At the lower portion of the middle of the mass there is a large oblong pore the size of a pin-head, well defined superiorly, which is the orifice of a pouch-like appendix of the vault of the pharynx (bursa pharyngea) a fetal relic confirmative, in Luschka's opinion, of a hypothesis of Rathke, that the glandular lobe of the pituitary body is especially produced through strangulation of the mucous membrane of the pharynx. According to Lacauchie as confirmed by Kölliker and Luschka, the adenoid tissue at the vault of the pharynx is a conglobate glandular mass, having the same structure as the tonsils; and hence it has been termed the pharyngeal tonsil. It is soft and spongy, and so closely incorporated with the cartilaginous tissue uniting the pharynx to the base of the cranium that it is exceedingly difficult to separate them. The follicles are identical with the solitary follicles of the intestine, and when in great numbers give a glandular aspect to the vault of the pharynx."

Hypertrophy of this gland is more common in childhood than in adult life, and is probably oftener present in males than in females. Cases I have seen this summer were in persons under twenty years of age, the majority being under ten years; the youngest is four years old. The symptoms are those of a severe cold in the head, with very much less secretion from the nose than commonly marks a simple cold. The secretion drops down from behind the soft palate, is sometimes very excessive, occasionally very tough and difficult to remove, and sometimes the efforts to get rid of it produce nausea and vomiting. As stated before, one or the other or both nostrils are closed posteriorly, so the breathing, especially during sleep, is distressing. The child usually sleeps with the head thrown back, lying flat on the back, and often with the arms over the head. The mouth is wide open; the tongue, becoming very dry, drops back into the throat, producing a distressing strangulation, whereupon the child crys out and jumps up badly frightened. A short period of rest ensues, to be followed by another paroxysm. In this way the little one passes the night, and on awaking in the morning is as tired as when it went to bed. As a consequence such children are usually anemic, have little appetite, are stunted in growth, have narrow-pointed chests, and often the arch to the hard palate is much narrowed. The child coughs, catches cold easily, is deaf, and shows a deficiency in the articulation of such nasal sounds as *m* and *n*, or has what Dr. Meyer, of Copenhagen, calls dead pronunciation.

Such patients have no use of their noses; have never realized the importance of the organ; can neither breathe through them, nor blow them. They never have a good night's rest.

The diagnosis is usually easy. With the rhinoscope no mistake can be made; or in small children the finger can be used. If the vault is filled with a number of enlarged glands it presents to the finger, as Cohen says, the sensation of a bunch of earthworms. If seen, it looks much like a bunch of cauliflower. Again, it will look as in the patient whose history I will now give.

A young man, aged nineteen years, told me he had never known any use for his nose. He had never been able to breathe through it, nor blow it. He had Meyer's "dead pronounciation" to perfection. He said he had never had a good night's rest; was just as tired on getting up in the morning as when he retired at night. He slept with his mouth wide open, and breathed through it both night and day—had horrible dreams and nightmares. His mother said that at night his breathing could be heard in every part of the house, and sometimes, after a severe paroxysm or an extra effort to get more air, he stopped breathing so long that she had frequently hurried to his bed, fearing that he was dead.

I found his nose quite free, but posteriorly the naso-pharynx was filled with a red, glistening mass, convex forward, and perforated with many openings like the faucial tonsils. There was absolutely no space on either side or in front; it was adherent to the pharyngeal wall. I endeavored to snare it, or get hold of it with McKenzie's laryngeal forceps, but failed. I introduced my finger behind the soft palate, hugging the wall of the pharynx closely, and found that I could tear it loose from the pharynx easily, it yielding like liver tissue. After getting my finger well up in the vault of the pharynx I discovered two horns extending into either post-nasal space. These I also tore out with my finger.* Relief was almost instantaneous. He was now able to blow his nose and breathe through it, which to him seemed very strange. A weak carbolic wash was given. Some slight reaction followed, and for a few days some small pieces of tissue were discharged. Several days later he returned home, having been entirely relieved. Several months are now passed since the operation and there is no return of disagreeable symptoms.

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*Under the microscope the growth proved to be simply tonsil tissue.

It is indeed a triumph for rhinology that a disease that had caused nineteen years of distress should be relieved in a few minutes by an operation so simple. Of course in younger patients relief is not so prompt or easy, many days of patient treatment being often required. Children do not bear cocaine well, and because of hemorrhage, which always attends the operation, general anesthesia can not be resorted to. All we can do in these cases is to remove the tissue piecemeal by an operation once every two or three days. I sometimes scrape the pieces out with my finger, or the curette, or pull them away with the forceps. In some cases I use chromic acid. I have seen no benefit from washes or powders. Not infrequently this trouble exists with engorgement of nasal tissue, and sometimes with true hypertrophy. Some physicians claim that by removal of the hypertrophied and engorged nasal tissue the adenoma in the vault of the pharynx will disappear. This has not been my experience. If the physician will but note the number of children presenting the symptoms described at the beginning of this paper, he will be convinced that the affection is by no means uncommon; if he could see these children after they have been put to bed, and witness the distress occasioned by this form of nasal obstruction, he would wonder that it should have received so little attention at the hands of medical writers. Since the affection is quite common in children (few of whom receive treatment), and not common in adult life, it is clear that many of the cases are cured by puberty. Great and irreparable damage, however, may and often does result before puberty is reached, and in view of this fact the importance of early and efficient treatment is manifest.

LOUISVILLE, KY.

PHLEBOTOMY IN SUN-STROKE.*

BY TURNER ANDERSON, M. D.
Professor of Obstetrics and Diseases of Women and Children, Medical Department of the University of Louisville.

The present heated term has afforded me an opportunity for seeing more than the usual number of cases of sun-stroke. I have, therefore, selected for discussion this evening this always dangerous and often fatal affection. I shall report three cases, and confine my remarks chiefly to treatment.

The cases which I report belong to what is described as the congestive form of the disease, being manifested by unconsciousness, full, slow pulse, stertorous respiration, and high bodily temperature. The patients were men. One only had convulsions. No history of premonitory symptoms was obtained, while such symptoms as headache, vertigo, disturbed vision, and frequent micturition, described by some authorities as occasionally occurring previous to unconsciousness, were not noted.

CASE 1. July 18th, at 4 o'clock P. M., a garden laborer, while working in a field under the direct rays of the sun was seen to suddenly reel and fall to the ground. He was taken in hand by his employer, an intelligent German, and conveyed to a good pump, three hundred yards distant, where cool water was thrown over him at once and continuously for some time. He was then taken into a large cellar and placed on a pile of sweet potatoes, this place being selected as the coolest about the premises. I was at once dispatched for, and arrived at 5:15, one hour and a quarter after the attack commenced. I found a muscular, big-framed man, aged about thirty years, lying unconscious and incessantly moaning. The conjunctivæ were conjested, the face flushed, and the head and body hot. Pulse 80, full and incompressible. The cellar atmosphere, although cool, was close and funky, and I had him removed to the shade of an apple tree adjoining the house, where I directed a renewal of the cold douche applied directly to his head, neck, and chest.

The application of cold did not produce the decided effect upon the respiration which, as a rule, is so promptly manifested when cold water is dashed upon the thorax, and as the loss of consciousness continued to be pronounced, I determined to resort to bleeding from the arm. I accordingly had Dr. Bullock, who accompanied me on the call, to tie up the arm, when I opened a vein in the usual manner and abstracted a large wash-basin more than half full of dark blood. The patient became at once more quiet, and breathed with greater ease; his pulse grew soft and compressible, and at the time when I thought enough blood had been taken he showed marked signs of returning consciousness. In less than ten minutes, with the continuous applications of cold water, he had sufficiently recovered to state that he wanted to relieve his bowels, and soon after passed two very large liquid stools in close succession. He was then carried to a porch at his quarters and left with the direction that cold water be continuously applied to his head, and the request to call me if he did not continue to improve. On the following day he was as well as before the seizure.

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*Read before the Louisville Medico-Chirurgical Society, July 29, 1887. For discussion see page 138.

Case 2. F. F., aged fifty, is a butcher, meat store and bar-room proprietor, weighing over 225 pounds, about six feet tall, with large bones and a prominent belly from excess of fat. The patient was subject to asthmatic dyspnea, was a regular yearly visitor to French Lick Springs, Indiana, and expected to go to the springs on the next morning. He had been drinking freely all day, and was found in his yard in an unconscious state at 5 P. M., July 19th. I saw him a few minutes later His body was hot to the touch, his face red and apparently bloated, pulse slow, respiration labored, and somewhat stertorous. He wore a flannel shirt and woolen pants. He was not wholly unconscious, but nearly so; conjunctivæ injected, but sensitive to the touch. The attendants were applying ice to his head, hands, and feet, but not in such a way as to be of service. I had his shirt and pants removed, and freely douched him with ice-water, while cloths wrung out of ice-water were applied to the head and chest. This treatment appeared to afford some relief, but I thought it advisable to abstract blood, and bled him from the arm in the median cephalic until his pulse become soft, full, and compressible. I then ordered two thirty-grain doses of the bromide of potassium, which was all the treatment he received. This man improved steadily, and was out of danger in a few hours. There were no sequela.

Case 3. C. F., aged forty-three, a low, heavy set, muscular man, with a short thick neck, a barkeeper by occupation, on night duty at an all-night house; went on watch at 8 o'clock P. M., July 19th, and at 11 o'clock went into unconsciousness, with constant moaning and stertorous breathing. He was at once seen by Dr. T. L. McDermott, and freely douched with cold water, cold cloths being constantly applied. I saw him at 2 A. M., July 20th, just as he was emerging from a severe convulsion. I learned that his bowels had acted spontaneously and very copiously several times when he was first seized. His pulse was slow and full, unconsciousness was complete, and the breathing loud and stertorous. The flexor muscles of the forearms were tightly contracted, and the arms were crossed on breast. The patient was apparently dying. I suggested phlebotomy, and chloral by enema, which was at once agreed to. The arm was with difficulty straightened enough for the proper adjustment of the fillet, and when I opened the vein but little blood could be obtained, although I laid it open freely. A messenger had gone for a syringe and chloral, and before he returned the patient had another convulsion. When he arrived, thirty grains of the drug were given by rectum, and repeated three times at intervals of thirty minutes. After the first injection of chloral the third convulsion occurred. The symptoms being, to my mind, plainly those of congestive apoplexy, I concluded to open the temporal artery. This done, the patient bled so freely that many towels and cloths were saturated. This procedure had a most salutary effect, and although two or three slight convulsive seizures recurred, and the total unconsciousness continued, he ceased to moan, his stertor was less pronounced, and his condition much improved.

At 8 A. M., July 20th, the temperature was 102, pulse 108; patient still wholly unconscious. 12 M., July 20th; no material change. Urine drawn with catheter; abundant in quantity.

6 P. M., temperature 101.5; pulse 120. Bowels moved involuntarily. Unconscious still. Respiration improved, and without stertor. Chloral ordered to be given if the convulsions returned.

July 21st, 8 A. M. Pulse 90; temperature 49. Has asked for water; swallowed a little with difficulty. When commanded to show the tongue did so with much effort. 12 M. Can be aroused by loud commands; able to talk indistinctly; can count number of fingers held before the eyes; has paralysis of superior recti of eyeballs, and when asked to look up makes effort and looks down toward the nose.

July 22d. Has continued to improve, but has some paresis of throat and tongue and can not articulate distinctly; was permitted to go home, and is gradually recovering, with no other sequela of the attack.

LOUISVILLE, KY.

ABUSE OF PEPPER TEAS: WITH CASES.

BY SAM E. WOODY, A. M., M. D.
Professor of Chemistry and Public Hygiene, and Clinical Lecturer on Diseases of Children, in the Kentucky School of Medicine.

"No hurt, no cure," formulates a popular impression. The physician so often uses it to console patients complaining of disagreeable remedies that its truth is seldom questioned. When suffering with some affection just severe enough to incapacitate him for work and yet too mild to seem serious, the impatient sufferer will often demand a remedy speedy and severe, for the two are inseparably associated in the popular mind. The physician is tempted to cater to this demand and "impress" the patient, ofttimes to the injury of the one and discredit of the other. Nowhere is this tendency better seen than in some of the most popular remedies for mucous inflammations. Familiar examples are: the eye-waters that make children scream and older persons weep for hours after their application, and the nitrate of silver injection that makes the gonorrheal patient stand on tip-toe and curse all creation. Experience has shown that they heighten the acute inflammations they are meant to cure; but they are popular because they impress the patient with the idea that something is being done.

Perhaps the most mischievous member of this class, because the most frequently and indiscriminately employed, is red pepper tea in catarrhal affections of the throat; while a remedy of undoubted value in low grade inflammations, it does unmixed harm in acute cases, where, unfortunately, it is most frequently employed. The general practitioner frequently meets with cases of severe throat inflammation, which, beginning as an ordinary acute catarrh, have been aggravated by pepper teas or other irritating gargles. This is well illustrated in the following two cases:

CASE 1. One night last February I was called, about 2 A. M., to see Mr. E. S., a vigorous young man, twenty-three years of age. He came home the evening before suffering with a moderately sore throat. Some one advised red pepper tea. The tea was made "as strong as possible." The more he gargled, the worse the throat got; and the worse the throat got, the more he gargled, until, finding swallowing impossible and suffocation imminent, he sent for a physician. I found the patient sitting up; the respirations were rapid and embarrassed; the voice a mere whisper, with a nasal intonation, temperature 103; externally the tonsils, especially the left, were found to be considerably though not extraordinarily enlarged. Opening the mouth and depressing the tongue gave him some pain, but revealed a dangerous state of affairs. The mucous membrane of the mouth was a vivid red with a glazed surface. The uvula, soft palate, and anterior pillars were translucent with edema, and completely obstructed the passage to the pharynx, while the pharynx itself seemed almost filled with the edematous mucous lining of its walls and the tonsils. So serious did the case appear that I prepared for tracheotomy. The red peper tea was discontinued, the edematous mucous membrane scarified, and the patient made to inhale steam from a croup-kettle in which some compound tincture of benzoin had been added to the water. Calling again in a few hours I found the edema almost gone and the patient comfortable. A saline purgative and a gargle of tannin, glycerine, and water were ordered. The patient rapidly regained his robust health.

CASE 2. Shortly after midnight on April 13, 1887, I was called to Mr. C., the manager of a large manufactory, a robust man about forty years old. His family physician had, the day before, prescribed red pepper tea, because, there being no hoarseness or other evidences of laryngeal trouble, he considered it a case of common sore throat. To hasten the cure the tea was made of unusual strength, and used thoroughly and frequently until about midnight, when a messenger was sent for the nearest doctor. I found the patient sitting up in bed suffering greatly with dyspnea, inspiration being difficult and attended with a whistling sound. Introducing my finger, I found the whole pharynx boggy, and behind the epiglottis two edematous rounded tumors could be felt meeting in the median line. On inspection the mouth and pharynx appeared deep red, the mucous membrane of the latter being greatly swollen. The laryngoscope showed the epiglottis so swollen that it looked almost cylindrical, which partly explained the attendant difficulty of swallowing. The ary-epiglottic folds appeared as two translucent tumors, almost meeting over the rima glottidis at every effort of inspiration, acting as valves, which, unless the swelling were checked, would soon stop the patient's breath.

The pepper tea was discontinued, an ice pack put to the neck and a spray of tannin, glycerine, and water ordered. In the mean time I provided for the operation of tracheotomy. For two hours the swelling seemed to decrease and the breathing to improve; but soon again the dyspnea grew more distressing. Unable to reach the family physician, I called Dr. W. Cheatham. He advised scarification of the swollen mucous surfaces. During this operation the patient seemed seized with laryngeal spasm, gasping for breath, his face growing purple, his eyes starting from his head, he threw his arms frantically about him and fell back dying in asphyxia. Quickly seizing his head we cut down at one stroke through the tissues of the neck to the second ring of the trachea. The blood, black as tar, spurted up into our faces. We quickly checked this frightful hemorrhage by pressing a wet sponge over the lower part of the wound while Dr. Cheatham deftly opened the wind-pipe and inserted the tube. The patient by this time was so far gone that it was only by the persistent employment of artificial respiration that he finally revived. The asphyxiation was so profund that, as the patient said afterward, the last thing he remembered was the first incision, which was perfectly painless. The sponge compress was allowed to remain until next day. The air the patient breathed was softened by steam from a croup-kettle, some compound tincture of benzoin being added to the water. By the fifth day the inflammation had subsided and the patient could breathe easily through the larynx. So the tube was removed and the wound closed by three deep sutures. The patient rapidly recovered, and is to-day a typically healthy man.

The point of most interest in these cases is the causation. The trouble seems to have begun in the pharynx in Case 1, ending there, and in Case 2 extending into the larynx. Beginning as a superficial catarrh, the inflammation was aggravated by the strong pepper teas until it extended down into the submucous areolar tissue, producing the edema with its dangerous effects. This opinion is strengthened by our utter inability to find, even after the most careful investigation, any other adequate cause predisposing or exciting.

LOUISVILLE.

A CASE OF DYSTOCIA REMARKABLE FOR THE NUMBER AND GRAVITY OF COMPLICATIONS.

BY NOLAN STEWART, M. D.

On the morning of June 5, 1887, I was called to see Mrs. E. H., white, aged twenty-eight, primipara, well developed and healthy. I arrived about 4 A. M. to find that she had been experiencing pains for about three hours. The waters had been discharged before my arrival. I was a stranger to the lady, and I suppose, from this fact, the pains subsided after my entrance into the lying-in room. After some conversation of a pleasant nature, she became reconciled to my presence and the pains recurred with renewed vigor. The abdomen was unusually large, leading me to suspect the presence of twins or a very large child. Upon digital examination I found the os uteri high up in the pelvis and dilated to the size of a silver dollar, pains regular and severe. The diagnosis of the presentation was easily determined, being the first position of the vertex.

Dilatation of the os and descent were slow and tedious. The head was quite large and the bones well ossified. The fontanelles were very small, preventing molding of the head to any extent, and on the whole every thing was unfavorable to a speedy termination of the labor. In the afternoon my patient became discouraged and begged me to deliver by forceps, but as labor was progressing, though very slowly, I declined to do so.

A consultation being requested, Dr. Southall was called in. He agreed with me that the forceps was not indicated at that time, and left.

Twenty-four hours after my first visit the progress of the labor had ceased altogether, and I saw that a resort to instrumental delivery was necessary. The head was now firmly impacted in the pelvis.

Drs. G. L. Pope and O. W. Stone were called to assist me. Dr. Stone was delayed, and after waiting for him about two hours Dr. Pope and myself proceeded to deliver the child.

Chloroform being administered, the forceps was adjusted. Dr. Pope first made traction, but delivery was so difficult that he became exhausted before accomplishing any decided result. I then took the forceps and succeeded in bringing the occiput well down under the symphisis pubis, but I also became exhausted and called upon Dr. Pope to resume control of the forceps, and he succeeded in delivering the head. We found the cord tightly entwined around the child's neck. This was quickly removed and the child completely delivered, but it was black from asphyxia. Dr. Stone arrived at this stage. He and Dr. Pope took charge of the child. The cord was cut and allowed to bleed moderately, and after faithful efforts at resuscitation they were rewarded with success, and the child turned over to the nurse.

In the mean time, I was looking to the interests of the mother. I introduced my hand into the vagina, and examined into the state of the uterus. I expected to find the placenta about expelled, but to my surprise discovered an hour-glass contraction of the uterus, the point of constriction being just above the internal os. Uterine contractions had ceased, and above the constricted portion there was inertia; but the uterus was enlarging, a fact which I naturally attributed to concealed hemorrhage. Placing the fingers and thumb of my right hand in a position to resemble a cone, I endeavored to overcome the contraction. To prevent further distension of the uterus by blood, I kneaded it externally with my left hand.

Ergot was injected subcutaneously. I succeeded in overcoming the contraction partially, when copious external hemorrhage ensued. My right hand became so numb that I requested Dr. Stone to insert his hand in place of mine. It proved very difficult to dilate the constricted part sufficiently to deliver the secundines, and soon Dr. Stone gave way to Dr. Pope, who delivered the after-birth. We gave another subcutaneous injection of ergot and kneaded the uterus very vigorously. As the uterus began to contract, blood and a great many clots were expelled. There was a tendency to recurrence of the inertia; so the uterus was firmly grasped for quite a while before it was deemed safe to leave it, when an abdominal bandage was adjusted.

The mother was greatly prostrated. The head of the child, as before stated, was unusually large, and the bones well ossified. To this fact was due a rupture of the perineum, which, fortunately, was only partial. The child weighed exactly thirteen pounds.

The events of the labor may be summed up as follows:

The very large head of the child causing it to become impacted in the pelvis, which necessitated instrumental delivery; the almost complete ossification of the bones of the child's head; the rupture of perineum due to the size of the child's head; the umbilical cord being tightly wrapped around the child's neck, thereby producing complete asphyxia; hour-glass contraction of the uterus; inertia uteri; concealed *post-partum* hemorrhage.

Dr. Pope and I operated on the following day to restore the integrity of the perineum, but, on account of the congestion of the parts from the tedious labor, there was no adhesion, and the operation proved a failure.

At this writing both mother and child are doing well.

BURDETT, MISS.

Societies.

MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, August 12th, Dr. John Godfrey, President pro tem., in the chair.

The essay on blood-letting in sun-stroke, read by Dr. Turner Anderson at the previous meeting, came up for discussion. (See page 133).

Dr. William Bailey said: The paper of Dr. Anderson would have been more satisfactory if he had given his reasons for the procedure advocated; some pathological conditions he hoped to obviate, some physiological conditions he hoped to establish by blood-letting in sun-stroke. We are simply told of a few cases that were bled and got well. No doubt all cases of sun-stroke are due to heat acting on the nerve centers. Changes in the blood and tissues are secondary to this. The influence of heat on the centers is chiefly expended upon those presiding over circulation and respiration. There are three varieties of sun-stroke:

1. Those cases in which death takes place at once from prostration.
2. Those in which there is pallor and depression of vital force.
3. Those in which there is high fever.

The first two varieties may be left out of this discussion, for I presume no one would advocate blood-letting in either of them. Practically, it resolves itself into the treatment of hyperpyrexia. A temperature of 110° or 112° is incompatible with life, on account of rapid tissue change when such high fever exists for any length of time. It might be well to inquire into what constitutes fever. Man possesses the power to produce heat and also the power to get rid of it. All the phenomena of abnormal temperature may be explained by the the loss of equilibrium in these forces. The cases under discussion may have an increased power of production, and likewise a diminished power of getting rid of it. This seems to be the case, for sometimes for a day or two before the attack the patient is unable to sweat. Prophylaxis at this time no doubt would save many lives. Heat may first stimulate the function of the nerve centers, then depress, and finally paralyze them. We have the parallel of this action shown in the influence of many medicines in varying doses. Venous congestion occurs in these cases, giving us an indication for unloading the right side of the heart. Why the author of the paper opened an artery to meet this indication I am unable to see. It does not necessarily follow that blood-letting is the proper remedy, although temporary benefit should follow its use. This occurs after its use in pneumonia, and yet I think it of very doubtful propriety in that disease. In sun-stroke blood-letting may, in addition to unloading the right side of the heart, act as an antipyretic, but to my mind it is a very expensive remedy for this purpose. Better remedies for this purpose are found in antifebrin, antipyrine, and the abstraction of heat by the application of cold. The subsequent condition of cases of sun-stroke does not indicate the use of blood-letting. Authorities are almost a unit against it as a remedial measure in this disease. I think that even cases showing a tendency toward apoplectic seizure may be more judiciously treated than by this measure, hence I do not think I should ever bleed a patient with sun-stroke if other means of meeting the indications were at hand.

Dr. Smith had seen ten cases of sun-stroke during the season in his service at the hospital, and one in private practice. Two of the cases at the hospital had already been bled before they came under his charge. One of them died, and the other is now experiencing a lingering convalescence. Of the the nine not bled one died, and the others recovered; two of them slowly. Bleeding had not been submitted to a fair test, for the worst cases apparently had been bled. As far as the lesson went, however, he thought it opposed to the practice of bleeding. The slow convalescence in these cases shows that there is a great deal of crippling of tissue, which would seem to indicate that all the blood in the system is needed for repair. In some of the worst cases there was no need of looking after the bowels to insure their emptying, for in these cases most copious watery discharges were passed involuntarily. He thought the treatment could be fairly summed up in constant, copious affusions of cold water. Even after the temperature of the body is reduced to the normal, the water should be kept running on to the head, in such a way as to prevent, if possible, any subsequent rise of temperature.

Dr. Godfrey said: It seems to me that the remarks of the preceding speakers have been more declaratory than demonstrative. The important point in the treatment of sun-stroke is to nicely interpret the symptoms. Every body understands that there are hyperemia and anemia of the brain; and in sun stroke one or the other of these may prevail. In one case we may have exhaustion and sluggish circulation; in another, just the reverse; in other words, a true thermic fever. Flint speaks of two kinds. Now it seems to me that one treatment would hardly be applicable to both. Being called to a case of the second kind where all the signs pointed to oversupply of blood to the brain, the indications would be to remove it, and blood letting is, in my opinion, both a rational and safe means of doing so. Flint refers to eight cases in his wards, where one was bled and recovered; the rest died. He refers to another where the signs pointed to cerebral hyperemia, that was bled freely with return to consciousness in an hour or so, and to recovery on the following day.

The case of the distinguished Dr. Mitchell, of Philadelphia, is perhaps well known to you all, wherein he sufficiently returned to consciousness to beg his father to bleed him. This was finally done, and he speedily recovered.

Dr. H. C. Wood, in commenting on the case, thought that the bleeding averted a threatening meningitis. However, he adds, that perhaps a cold bath would have rendered the bleeding unnecessary.

Dr. Clemens agreed with Dr. Bailey that the congestive form of sun-stroke is the only one calling for blood-letting. That form of insolation is characterized by venous congestion. The nerve centers are to some extent paralyzed, and he saw no more rational method of treatment than that of withdrawing a part of the blood. There are already so many blood cells crowded into the brain that they are in each other's way, and can not perform their functions. Purging only thickens the blood. The blood is rapidly reproduced when withdrawn, and he could see no harm to come from moderate bleeding.

Dr. Anderson, in closing the discussion, said he was young in the practice of phlebotomy, having had very little experience in it. He could not see what valid objections could be urged against arteriotomy in the case reported. In taking blood from the temporal artery he had removed blood that in a short distance would enter the veins of the head, and he believed that in that way the pressure was as effectively taken from the brain, if not more so than when the blood was drawn from the veins of the arm. Of course no one neglects cold in these cases. Nothing else acts so well as cold water, and nothing can take its place.

Dr. von Donhoff suggested aspiration of the right auricle, in order to draw off the blood, and relieve the congestion more promptly, since this had been found fairly safe as a surgical procedure.

Dr. Godfrey believed the procedure too hazardous in this condition, but inclined to think that it might be worthy of trial in some cases of edema of the lungs, or where the symptoms were very urgent.

CONTRA-INDICATIONS OF NITRO-GLYCERINE. When headache and neuralgia occur in patients with chronic congestion of the subcutaneous veins of the face, nitro glycerine is to be avoided; and similarly it is of no use in asthma when the face is reddened in consequence of emphysema. If, however, a pale face exists with angina pectoris, migraine, giddiness, shock, toothache, or sea-sickness, the best results may be looked for by giving nitro-glycerine.—*Lancet.*

Reviews and Bibliography.

The Practitioner's Hand-book of Treatment; or, The Principles of Therapeutics. By J. MILNER FOTHERGILL, M. D., Physician to the City of London Hospital for the Diseases of the Chest, Victoria Park, etc. Third American, from the third English edition. 8vo, pp. 655. Price, $3.75, cloth; $4.75, leather. Philadelphia: Lea Brothers & Co.

This work, which demonstrates perhaps more fully than any extant the value of physiological principles as applied to clinical medicine, met, in its first edition, with great popular favor. That professional interest in the work has since suffered no abatement is attested by the demand for two new editions in little more than a decade.

A critical analysis of the Practioner's Handbook of Treatment at this time would be to our readers a thrice-told tale. The careful reader of former editions will note, in chapters already familiar to him, that the third edition has received numerous additions, necessitated by the growth of medicine, while the text in not a few places acquires new force and beauty at the writer's hands. The work is further enriched by the addition of two new chapters, one on The Dietary in Acute Disease and Malassimilation, and another on The Management of Convalescence.

Practical Lessons in Nursing: The Nursing and Care of the Nervous and Insane. By CHARLES K. MILLS, M. D., Professor of Diseases of the Mind and Nervous System in the Philadelphia Polyclinic and College for Graduates in Medicine, etc. 12mo, cloth, pp. 147. Price, $1.00. Philadelphia: J. B. Lippincott Co. 1887.

This unpretentious book, though written for the instruction of nurses, abounds in practical hints which the practitioner in medicine may wisely add to his store of knowledge. The author has selected for discussion a topic never before systematically treated, and, bringing to his task an accurate knowledge of nervous affections with a large experience in their management, has made easy of access a store of indispensable information hitherto obtainable only through an apprenticeship in the insane asylum or hospital for the treatment of nervous diseases. The author's style is simple and direct, while the subject matter is made to answer a thousand practical questions with which the physician is constantly plied by those whose duty it is to minister to a most unfortunate and often neglected or mismanaged class of patients. No physician who reads the opening chapter will fail to peruse the book to the end.

The Systematic Training of Nursery Maids, oy Samuel S. Adams, A. M., M. D. Reprint.

Possibility of Syphilitic Infection by Vaccination. By Robert J. Lee, Cantab. F. R. C. P., London. Reprint.

Riverside Southern California as a Health Resort. By J. F. T. Jenkins, M. D., C. M. Reprint from Canada Medical Record.

On the Existence of Dermatitis Herpetiformis (of Duhring) as a Distinct Disease. By L. Duncan Bulkley, A. M., M. D. Reprint.

Proceedings, Addresses, and Discussion of a Public Health Conference held at Louisville, Kentucky, May 24th and 25th, 1887, under the auspices of the State Board of Health.

Translations.

THE INFLUENCE OF CERTAIN DRUGS ON THE CIRCULATION IN THE BRAIN AND FOREARM.—(Capelli a Brugin.) As the result of accident, the writers had the opportunity of observing several cases of injury of the calvariun with considerable loss of the bones of the skull. These they utilized with a view of ascertaining the effect that the following named drugs would produce on the circulation in the brain and forearm, both volumetrically and sphygmo-graphically.

1. Amyl nitrite gave the following results:

(*a*) The inhalation of this substance diminished the force of the heart-beat.

(*b*) Its influence is observed more quickly and more markedly in the vessels of the brain than in those of the forearm.

(*c*) During its inhalation considerable oscillation occurs in the volume of blood in the brain and forearm.

2. Morphia hydrochlorate. Here three periods are to be remarked:

(*a*) In the first, for some minutes after the administration of the drug, there occurs a mild constriction of the arteries of the arm and brain.

(*b*) This period follows with a diminution of vascular tonus which reaches its height with the advent of sleep. At the same time there is an obvious increase in the circumference of the forearm and the intracranial pressure.

(*c*) In the last period the vascular tonus gradually reappears while sleep still continues, and marked oscillations occur, but with intermissions.

3. Chloral hydrate:

(*a*) At first a period of anemia of the brain is observed in consequence of diminished arterial resistance at the periphery, which continues till the beginning of sleep.

(*b*) Later there begins a period in which the vessels of the brain are paralyzed, and the volume of the brain increases. The duration of this increase varies, and later it is accompanied by a period of anemia, which last coincides with vomiting.

4. Hyoscyamin. The results after injecting one-twenty-fifth of a grain were the following:

(*a*) A few minutes after the administration the energy of the heart and the vascular tonus increased.

(*b*) Twenty minutes later the force of the heart and the vascular tonus were both diminished. At this point of time there was observed a considerable increase in pulse frequency, and though not constant, a diminution of the volume of the forearm and brain.

(*c*) The greatest frequency of the pulse and the lowest energy of the heart and also the lowest degree of vascular tonus corresponded with the disappearance of narcosis. The normal condition returned gradually but intermittingly.—*Archivi di Psychiatria.*

BROMIDE OF POTASSIUM IN PTYALISM OF PREGNANCY.—In a very stubborn case of salivation during pregnancy Dr. Schramm made trial of numerous drugs recommended for the treatment of this trouble. Iodide of potassium had no effect. Atropine, so highly recommended by Heidenhein and Ebstein, ameliorated the condition, but had to be abandoned on account of manifestations of poisoning. Galvanization of the cervical sympathetic and subcutaneous injections of pilocarpine acted only as palliatives. Permanent cure was gained only after the internal use of bromide of potassium, ten grains three times a day.—*Memorabillien.*

ARE CHILDREN BORN RIGHT AND LEFT HANDED.—On the 30th of July M. Galippe read an essay in the Society of Biology of Paris in reply to a communication of M. Debierre, of Lyon in regard to the question as to whether children are born right- and left-handed. Debierre had weighed and measured the fetal bones without being able to decide in advance whether the individuals were destined to be right- or left-handed, and concluded therefrom that right- and left-handedness are matters purely of heredity and habit. Galippe has, on the other hand, observed that the left maxillaries of right-handed people are pre-eminently the seat of anomalies of development. Eight times out of ten the eruption of the wisdom teeth in the left superior maxillary are accompanied by complications. Out of sixty-four observations of asymmetrical anomalies he had observed forty-one on the left side and twenty-three on the right. Of these twenty-three cases there were three left-handed. There remain, then, forty-one anomalies on the left side to twenty on the right, or a preponderance of fifty per cent in favor of the left side. Furthermore, in consulting the statistics of anomalies collected by authors it appears that the great majority of instances are represented as belonging to the left side. Opposite phenomena are observed in the left-handed. On the other hand, many left-handed are embraced in the category of imperfect developments. The left-handed may become ambidextrous by education, but they always retain a certain preference for the left hand. M. Galippe concludes that we are right-handed by atavism and left-handed by morbid heredity.—*Le Progrès Médical.*

THE TREATMENT OF TAPE-WORM.—Dr. Berenger-Féraud, as chief of a large marine hospital, has made for a number of years a special study of tape-worm. He is of the opinion that there are now fifty cases of tape-worm in the marine hospitals of France where there was one twenty-five years ago. This enormous increase he considers due to increased intercourse with the far East, especially Cochin China and Senegambia.

Tape-worms are in many cases discharged spontaneously. Unless expelled, they may remain in the intestines for eight years or more. They can also, though this is very rare, be discharged by vomiting. Their length is usually less than six feet. At least half of the tape-worms expelled are less than fifteen feet, and in eighty-nine per cent. the worm measures less than thirty feet. Once a worm was met of the remarkable length of one hundred and ten feet. Usually only one worm is found in the intestines, but as many as twelve have been met with in one individual.

In regard to the action of serviceable anthelmintics he states that of 1,842 cases, in only 425 was the worm successfully expelled with the head. All known remedies for tape-worm were brought into requisition. Calomel, table salt, garlic, mulberry bark, and eucalyptus remained without the least effect. Ether, turpentine, and cocoa-nut, on account of their small efficaciousness did not justify their employment, as also male fern and pumpkin seeds. Kousso perfectly fresh is useful, but it stales too rapidly. The rind of pomegranate root remains the teniacide *par excellence.* If the bark is taken from a tree sufficiently young and sound, good results are to be expected. Since pelleticrin, the active principle of pomegranate bark, has been discovered, the administration of the alkaloid has been preferred on account of its greater convenience and more exact dosing. But this must be used according to fixed rules and under certain precautions if certain success is to be counted upon. In this behalf the writer recommends the following procedure:

On the day before the proposed treatment the patient is to be put on milk diet. On the day of treatment he is to keep his bed, and early in the morning, say about six o'clock, he is to take an infusion of senna. An hour later, at seven, he is to take half the medicine, namely, seven grains of tannate of pelletierine dissolved in simple syrup, and half an hour later the other half. The patient is then to lie with closed eyes and without moving in bed, in order to avoid sickness and vomiting. At eight o'clock the patient is given a cathartic of castor oil, but remains in bed till all nausea and nervous symptoms disappear. The disposition to stool is to be resisted by the patient as long as possible. If the patient does not feel a disposition of the bowels to act in a short time, an enema of senna and sulphate of soda is given. At stool a large vessel of lukewarm water is to be used, so that the worm when partly expelled will be suspended in the water and not easily torn.

Abstracts and Selections.

Injections of Carbolic Acid and Hyperosmic Acid.—No one probably lays claim to a complete knowledge of the pathological changes which give rise to the condition or conditions known as muscular rheumatism, but it may fairly be supposed that they include a hyperemic state of the perimysium, together with some plastic infiltration and migration of white blood corpuscles. Now it was shown by Binz that carbolic acid, salicylic acid, and several other substances possess the property of paralyzing and killing leucocytes, and of preventing their migration. This led Dr. Edgar Kurz, of Florence, some few years ago, to employ intramuscular injections of a two-per-cent solution of carbolic acid in a few cases of muscular rheumatism. The results were astonishingly satisfactory, and were published in *Memorabilien*, 1882, from which source a notice appeared in many other journals; not, however, always very correct as to the doses employed, grams having been mistaken for grains—a misconception which, however important, is often very difficult to avoid, as those who read many foreign medical journals know only too well, simply because abroad "gr." sometimes stands for grains and sometimes for grams, and as a gram is more than fifteen grains the consequences of a misunderstanding on this point may frequently prove serious. Dr. Kurz introduced from eight to forty syringefuls into the muscular tissue at a sitting, each syringeful consisting of a gram of the solution. In no case was the urine discolored, or any other sign of toxic action observed; the injections were practically painless, and their anesthetic effect became apparent in half an hour. Since these observations were published, Dr. Kurz has continued to employ this method with excellent results. He has also found it very efficacious in the inflammatory affections of the sheaths of tendons due to injuries, and generally in sprains where the ligaments, tendons, or muscles were affected. Some similar and even more universally successful results have this year been published by Prof. Benedikt, of Vienna, from the use of the same solution in affections of the ligaments and tendons, but more especially in acute rheumatism, where it appeared to act similarly to salicylate of soda, quickly reducing the pain, the swelling, and the pyrexia. The best results were, however, obtained by combining the two methods, particularly at the commencement of the disease, giving large doses of salicylate by the mouth and at the same time from one to three injections of carbolic acid daily. A somewhat similar form of treatment has been very successfully employed by Dr. Stekoulis, of Constantinople, in sciatica, an affection due to causes of very various nature, but frequently allied pretty closely with chronic rheumatic affections. The injection he used was a solution of hyperosmic acid, a substance which is in constant request by pathologists for hardening tissues for microscopical purposes. All the ten cases in which this remedy was employed were of considerable standing and very obstinate, Jacoby having recommended its use under such circumstances A one-per-cent solution was used, which, on account of the action of light upon it, was pre served in dark glass bottles. One gram was injected deeply into the gluteal region close to the nerve, and this was followed by other injections extending along the course of the nerve to the number of something like a dozen. The pain caused by the injections was somewhat severe and burning, but it only lasted one or, at most, two minutes. At first the injections were repeated daily, afterward every three or four days. Care was required never to insert the needle into the same point as before. Out of ten cases, eight were completely and one partially cured, one only remaining unbenefited. No unpleasant effects beyond a slight tenderness over the points where the needle had entered, and which did not last more than a day or two, were observed.—*London Lancet.*

The Physiological Effects of Beef Extract Upon the Heart.—While examining the effect of beef extracts upon the heart, Lehmann had his attention directed to the fact that the pulse-rate is often easily influenced by circumstances which have not ordinarily been supposed to be of much importance. In the study of this subject which he then made with Bleuler, the following general conclusions were reached, but obviously an independent confirmation of them is very desirable:

1. Drinking moderate amounts of hot water makes the pulse more rapid, while considerable quantities of cold water slow it. The increase is 3 to 8 beats while the decrease may be as much as 10. (Mantegazza has made a somewhat similar observation [Schmidt's Jahrbucher, civ, 346,] and Winternitz in his Hydrotherapie evidently has this influence of cold water in mind.)

2. Careful covering with heavy bed-clothes increases the pulse-rate along with the sensation of warmth; exposure of the naked body to a lower air-temperature lessens the rate markedly.

3. Lehmann's pulse-rate was lowered by light reading lacking all excitement, but that of Bleuler was not perceptibly influenced.

4. Every feeling of burning, pressure, or nausea, associated with the stomach, makes the pulse more frequent; the same is true of feelings of fullness in the intestines, and especially in the rectum.

5. Salts (Na_2 SO_4; NaCl; $MgSO_4$), which have no specific action on the heart, influence the pulse reflexly according to the amount of the unpleasant sensations produced in the stomach and intestines. Here the influence of the rectum and of nausea is most marked. The effect of a meal as such, that is, cold food in moderate amounts, appeared to be negative, provided no special sensations in the intestinal tract were produced.

The older experiments of Kemmerich and of Bunge on the influence of beef tea and extracts on the heart were at variance. The view of the former, that the action of these substances was like that of potassium salts, and, in fact, due to their presence, needed confirmation. Lehmann has called attention to the fact that Kemmerich's experiments on himself show a rather more sensitive intestinal tract than is evident in Bunge's investigations. Suspecting that these differences would explain some of the discrepancies of their results (as a reflex action on the pulse), he set to work to investigate this point. He found that:

1. Ordinary *bouillon* [250 ccm. warm water, 2.5–5.0 extractum carnis, 4.0 Na Cl (or without)] had only the same effect as an equal amount of warm, dilute, salt solution, or warm milk, or even warm water.

2. In a considerable series of experiments with larger doses (10, 30, 60 gm.) in lukewarm or cool water, the action on the pulse-rate was very slight, except as due to irritation of the intestinal tract, more especially of the stomach or of the rectum. When nausea or diarrhea is produced, the reflex increase of the heart's action is evident. It passes away, however, with these other effects; for example, when the rectum is emptied. The action comes on more rapidly than it could if the *absorption* of the

potassium salts were the important element, and does not last or increase, as it should if due to some special influence of these salts.

3. Experiments with KCl [6.0–10.0] in warm or cold water verified this view, as well as the conclusions which Bleuler and Lehmann had drawn from the examination of other salts to which no particular effect on the heart is attributed.

4 Long-continued doses of the meat extract or potassium salts given to white rats, as well as a large dose given for many days to feeble or insufficiently nourished or fasting animals (rats and cats), also failed to demonstrate any deleterious action on health or weight. The amounts were varied up to one per cent of the body weight and continued for thirty days. Lehmann also quotes an experience with two feeble children who could take no milk, and therefore received large amounts of beef tea (with or without eggs) for a long period, with great advantage.

The cutting up of the meat has an important influence on the character of the extract obtained. Thus, Lehmann found that while solid beef gives up 69 per cent of the entire ash, and 80 per cent of the potassium salts, when heated with distilled water (80°–90° C.) for three hours, the same beef cut up into dice yields up 79 per cent of its ash and 98 per cent of the potassium salts. The method of the Liebig extraction only takes out 60 and 66 per cent of these respectively, and this is due to the fact that the meat is boiled too short a time, or possibly in too little water.

The usefulness of beef tea (soups, etc.) lies then, according to Lehmann, (1) in their action as a substitute for a meal (with, perhaps, cerebral and muscular stimulation); (2) in stimulating digestion at the beginning of a large meal; (3) in making food more pleasant, acting as a spice.—*Dr. Joseph W. Warren, Boston Medical and Surgical Journal.*

A Few Practical Points in the Selection and Administration of Anesthetics. Frederick Hewitt, M. D., of London, writes in the Annals of Surgery, as follows:

Analysis: (1) The best method of administering nitrous oxide and ether in combination or succession; (2) the prevention of vomiting during or after the administration of an anesthetic; (3) the danger of inducing general anesthesia in patients suffering from obstructive dyspnea; (4) the possibility of dangerous symptoms occurring from the exhibition of morphine or opium prior to the administration of ether or chloroform.

1. It is taken for granted that ether, preceded by nitrous oxide, is the best anesthetic for the bulk of cases in general surgery. The preliminary administration of nitrous oxide is especially to be recommended in muscular, alcoholic, nervous, or excitable patients. Atmospheric air should be rigidly excluded during the inhalation of the nitrous oxide; ether vapor should be *gradually and increasingly* admitted when the signs of nitrous oxide narcosis commence to appear, and, when much epileptiform movement occurs, a small quantity of air should be allowed. A portable apparatus, by which it is possible to administer these anesthetics in the manner advised, is manufactured. The sudden transition from the inhalation of nitrous oxide to that of strong ether vapor is not desirable. By the above method, coughing, excitement, inhibition of breathing, and struggling are prevented.

2. Vomiting during the administration of an anesthetic is usually to be prevented by rapidly and thoroughly anesthetizing the patient, the diet having been previously regulated. Deep narcosis having once been established, reflex acts should be carefully watched for. Among these, deglutition is often an important indicator of incipient coughing or vomiting, and if it occurred the administration should be pushed. The chances of vomiting after the administration can be lessened by the above means; in addition to this, the swallowing of mucus or blood should be prevented by keeping the patient's head upon its side. The patient should be moved as little as possible after the operation. Experiments with cocaine (in aqueous solution administered before the operation) have been made, but it was difficult to say whether it had answered its purpose.

3. It is questionable whether any anesthetic should be given to patients suffering from obstructive dyspnea. In a case in which a large innominate aneurism pressed upon the trachea, and which was rapidly enlarging, an operation was decided upon. Previous experiment had shown that digital pressure upon the subclavian and carotid arteries did not materially increase the dyspnea. Chloroform was cautiously given. After the ligature of the carotid the breathing became feeble, and, after the other artery had been tied, it ceased and could not be restored by artificial means. It was probable in this case that the nervous mechanism of respiration, doubtless somewhat exhausted before the operation, could not be sufficiently stimulated during anesthetic sleep by the imperfectly oxygenated blood. Artificial respiration was ineffectual, although, before the operation, the chest and abdominal movements were perfectly competent to maintain the due oxygenation of the patient's blood. Another case of a similar nature, and with an equally unto-

ward result, had been reported to the author; and in future he would certainly refrain from administering an anesthetic to such patients.

4. The sedative effects which opium or morphine exert upon the respiratory system should certainly contra-indicate their employment in cases in which respiratory embarrassment or failure would be likely to occur. Professor Victor Horsley has advised the subcutaneous injection of morphine in cerebral surgery; and the injection of morphine with atropine before the administration of a general anesthetic has been adopted by many surgeons upon the continent. The practice, however, was one which should be followed with the greatest caution, and in many cases altogether avoided. In illustration of this may be cited the following remarkable case in which it seemed probable that the cessation of breathing which occurred was partly or wholly to be attributed to morphine thus administered. The patient was a young woman who presented unmistakable symptoms of a cerebral tumor in the cortex of the brain. When prepared for operation she was semi comatose and hemiplegic; the corneal reflex was well marked; her pulse was 90, weak but regular; her respiration was feeble. A hypodermic injection of morphine was given, and the administration of the anesthetic (a mixture of four parts of chloroform to one part of alcohol) was commenced with a Junker's inhaler. Very little of the anesthetic was needed (one dram throughout). As the operation proceeded respiration became more and more feeble and then ceased. It was restored by artificial means, but again ceased and was again restored. One hour and a quarter after the commencement of the operation it ceased for the third time and could not be made to return. Artificial respiration was then kept up (with occasional intermissions to see whether automatic breathing would return) for *four hours*, during which time the operation was successfully completed. After four hours, automatic breathing recommenced, but ceased not very long after (about two hours), and the patient died. The probable explanation to be given of such an occurrence is this: the respiratory nervous mechanism, already much enfeebled, and possessing like the rest of the nerve tissues but a very limited store of energy, was rendered less capable of emitting those impulses upon which depended the respiratory movements of the patient, by reason of the sedative drug introduced into the system. There was no reason to accuse the anesthetic; for the cessation of respiration was not like that observed in chloroform poisoning, and when artificial respiration has re-established automatic breathing in the latter condition recovery invariably ensues in the absence of complications. The manipulations to which the brain was subjected, or the loss of blood which necessarily took place, might have exerted some influence; but from the general considerations of the case, and from the knowledge of the dangerous effects which morphine may produce in conditions of respiratory feebleness, the more reasonable explanation of the symptoms is by the last-named hypothesis. It is known that Cheyne-Stokes respiration can be brought about by giving morphine to etherized dogs, and this form of breathing is usually to be regarded as indicating a lessened irritability of the respiratory centers. It is therefore probable that a similar condition might be produced in human beings, and under certain circumstances might be so pronounced as to partially or completely paralyze the respiratory functions. Artificial respiration would probably be successful in such cases if persevered with for a sufficient length of time.

AORTIC DISEASE.—Dr. Sansom (London) at a recent meeting of the British Medical Association gave a valuable address upon the Treatment of Some Forms of Aortic Disease. After a few remarks upon mitral disease, in which he said he had come to the conclusion that digitalis was our most efficient remedy in mitral regurgitation, and convallaria in mitral stenosis, he gave an analysis of a large number of cases of aortic disease, from which he concluded that the two commonest causes of this form of cardiac affection were (*a*) rheumatism, and (*b*) atheromatous degeneration. He had found these two causes about equally common. Aortic disease attained its maximum frequency in early adult life. In childhood, according to his observations, the mitral valve was affected in proportion to the aortic as five to one. This accorded with general experience. He proposed to confine his remarks upon treatment strictly to one class of cases, viz., aortic disease arising from rheumatism; and he wished it to be distinctly understood that his observations did not refer to any other branch of the subject. He would divide rheumatic cases into two groups—(*a*) those in which there were no symptoms referred to the heart, and (*b*) those cases in which symptoms referable to the heart were present. As regards the former class, patients sometimes sought advice for the most diverse maladies. He related a case of a lad who consulted him for incontinence of urine, and in whom well-marked aortic disease with hypertrophy of the left ventricle was found to be present. In cases of aortic disease without cardiac symptoms, it might be laid down as an absolute rule that all agents which tended to increase the force of the ventricular systole were absolutely hurtful. Compensation being already perfect, such agents could only serve to disturb the equilibrium. Pain at the heart was an essential and early symptom in aortic disease, while it was well known that pain was not an essential symptom in mitral disease. The pain in aortic disease might attain the intensity of a true angina. Whether hypertrophy or dilatation should be the first to follow disease of the aortic valve was purely a question of nutrition. If nutrition were well maintained, hypertrophy would come first; if nutrition were imperfect, dilatation would precede. As regards the very important question of the administration of digitalis in aortic disease, medical opinion and experience had varied much from time to time. The present tendency was rather in favor of its administration, a view supported by so good an authority as Dr. Oliver, of Newcastle-on-Tyne. While carefully guarding himself against an absolute expression of opinion, Dr. Sansom pointed out certain drawbacks to the use of digitalis, viz., (1) It may increase the distress and aggravate the symptoms present. In some of his cases where digitalis had had this effect he had seen great relief follow the administration of five-minim doses of tincture of aconite and the inhalation of nitrite of amyl. (2) Digitalis sometimes caused sickness. (3) In some cases where much temporary relief was obtained by its administration sudden death had followed, apparently as the result of its use. Yet, in spite of these dangers and drawbacks, he believed that digitalis was sometimes of service in the early stage of aortic disease and for a limited time. If given in the same manner and for the same length of time as was usual in mitral disease, great evil would result.—*London Lancet.*

Leucin and Tyrosin.—Dr. Anderson, in 1879, read at Cambridge a thesis on this subject, in which occurred the following statement: "The presence of leucin and tyrosin in the urine of man, in the course of numerous diseases, shows that it is the function of the healthy liver to decompose them partly into urea, and to thereby prevent their undue accumulation within the system." Since 1879, many objections, of which the following are some, have been raised: "That leucin and tyrosin appear only in cases of acute atrophy, and in some few of the exanthemata; that they are never otherwise present in fresh, but only in putrefactive urine; that the instances of their appearance in fresh urine are apparent and not real; that they are stated by the author to be present in diseases having no apparent direct connection with the liver. He replied to these objections. He pointed out how impossible it was for the blood as a whole, or even part, during health to be entirely free from them, and how much more liable it was in disease to be contaminated with them. He spoke of their dialysability, and of their presence in many perfectly fresh pathological fluids. He explained the methods employed for obtaining perfectly fresh urines, etc., and compared the behavior of so called pseudo leucin and tyrosin with that of the true substances. Replying to those who ignorantly assert their non-clinical value, even if present, he showed the fallacy of these assertions. Replying to the objection that leucin and tyrosin are results of putrefactive change of peptones present in fresh urine, he asserts that, in most instances, the only peptonoids present in such urine are leucin and tyrosin, and that this was confirmed by repeated experiments.—*Ibid.*

Tetanus.—Mr. Austin Meldon (Dublin) read a paper at the recent meeting of the British Medical Association on the Treatment of Tetanus. He wished the members to test a plan of treatment which in his hands had been singularly successful, and to place on record the results of treatment with different drugs in 937 cases of acute tetanus collected by him. In his first case, twenty years ago, he divided the nerve with only temporary relief, and he had since that time tried in succession Calabar bean, Indian hemp, curare, quinine, alcohol, and opium, with an invariably fatal result. Some years since he tried a combination of hyoscyamus, belladonna, and conium in a bad case, which recovered under this method, and since then several other cases, with satisfactory results. Of 17 cases in which these drugs were administered by him he had 13 recoveries and 4 deaths. The following statistics of 937 cases collected by the author of the paper are of interest: In 370 cases treated by chloral, 83 recovered and 287 died; 135 treated by curare, 23 recovered and 102 died; 60 by nicotine, 3 recoveries, 57 deaths; 96 by opium, 4 recoveries, 92 deaths; 21 by conium, 3 recoveries, 18 deaths; 76 by cannabis indica, 12 recoveries, 64 deaths; 28 by bromides, 2 recoveries, 26 deaths; 103 by alcohol, 25 recoveries, 78 deaths: 17 by belladonna, conium, and hyoscyamus, 13 recoveries, 4 deaths; 41 by all other remedies, 17 recoveries, 24 deaths. All cases in which the first symptoms commenced later than the fifteenth day are excluded from this return.—*Ibid.*

Pilocarpine in Puerperal Convulsions. The patient was a multipara, between thirty and thirty-five years of age, in about the seventh month of gestation, and was said to be a habitual drunkard. I first saw her about 3 P. M. Her face was of a dusky hue, and there was an ecchymosis on the lower eyelid on the right side, as if from a fall or blow. There were numerous purpuric spots, about the size of small peas, on the forearms and legs, and the skin generally presented the same dusky hue as the countenance. The surface was quite cool; pulse 80, strong and full. The catheter drew off one or two drams of highly bloody urine; but there was no edema of the legs or face. Every ten minutes or oftener the patient was seized with severe general convulsions, remaining drowsy, but capable of being partially roused in the intervals. Labor was in active progress, and the os moderately dilated. I regarded the prognosis as not very unfavorable, apart from any kind of treatment, but at the urgent entreaty of relatives that something should be done, a disc containing one third of a grain of pilocarpine was injected hypodermically. The child was born about half an hour afterward, and had plainly been dead for some days. Copious perspiration resulted in the mother; the convulsions soon ceased, and she made a good recovery, with the subsequent aid of iron and small doses of turpentine.—*Dr. Robert Kirk, London Lancet.*

THE TREATMENT OF GASTRALGIA.—I can tell you of a drug which cures gastralgia. Before you prescribe it, however, you ought to find out if there be any prominent pathological concomitants or causal antecedents of the disorder, and deal with them. Anemia, sexual excess, overwork, work under wrong conditions, uterine discharges, masturbation, etc., must be appropriately met. But for the cure of the gastralgia something more is usually necessary. Of all the directly therapeutic results in medicine with which I am acquainted, one of the most demonstrable is that which can be produced by the suitable exhibition of arsenious acid in uncomplicated gastralgia. I give one twenty-fourth of a grain of arsenious acid, made into a pill with two grains of extract of gentian, thrice daily, between meals. The use of this remedy must be continued for a few weeks. In a case of moderate severity no other medicinal treatment is necessary. The gastralgic pains become less frequent and less severe, and recovery is steadily and surely attained. In severer cases I use some form of counter-irritation to the epigastrium, and I usually employ a rubefacient liniment of ammonia. In the severest cases vesication by a fly-blister is of service, and the blistered surface should be kept raw for some days by means of a daily dressing of savin ointment. But you must not rely upon treatment by drugs alone. Every hygienic adjuvant which tends to raise the strength of the patient is of high value in the cure of gastralgia. I especially advise you to make sure the sufferer feeds well and fully. The diet should be generous. A "dyspeptic" regimen makes a case of gastralgia worse. When you are satisfied there is no, or but slight, gastric catarrh in the gastralgia of a fairly vigorous adult, you should direct a dietary after this plan: Breakfast, bread and butter or dry toast, with some fresh white fish, or some cold chicken or game, or a mutton chop, with a breakfast-cupful of cocoa or weak tea or coffee. Dinner (1 P. M.), fresh beef or mutton, with bread, potatoes, cooked green vegetables, a fruit tart or a farinaceous pudding, with a glass of light bitter ale. Tea (at 5 P. M.), bread and butter or dry toast, with a small cupful of cocoa, tea, or milk and water. Supper (not later than 9 P. M.), white fish, or some cold chicken or game, or a little cold meat, with bread, and a glass of ale.—*Sir James Sawyer, Ibid.*

PACHYDERMIA LARYNGIS.—With reference to the case of the Crown Prince of Germany, Professor Virchow read a paper before the Berlin Medical Society, on July 27th, on the disease which he terms pachydermia laryngis. After pointing out the mode in which the squamous epithelium extends from the pharynx to the vocal cords, and its distribution in the larynx, he refers to the two conditions which he groups under the term pachydermia, these conditions being more or less allied to chronic inflammation. In both a greater or less amount of squamous epithelium is formed, the result in the one case being a flat, diffuse swelling of a great part of the surface toward the posterior end of the vocal cords, and the other a formation of warty growths—what is commonly known as papillomata, and usually situated toward the anterior ends of the cords. In these the hypertrophy of the epithelium is the chief element, the elongation of the papillæ being, according to Professor Virchow, a secondary process. The latter he terms pachydermia verrucosa. The following is the point on which he lays stress, as distinguishing these affections from epithelioma: He looks on all the cases as simple, local, and only superficially hyperplastic, in which he finds a sharp line of distinction at the base of the epithelial growth separating it from the fibrous tissue beneath. Where, however, there is any trace of epithelium in the fibrous tissue, he considers the case suspicious. Neither the sessile nor the papillary swellings must show any thing of an epithelial character below the border line between epithelium and connective tissue. If there is no epithelium beneath this border line, then, whatever may have happened on the surface in the way of papillary outgrowths, fissures, etc., he considers that the disease is local and benign. Apparently the disease, in the case which has excited so much interest, belongs to the class of pachydermia verrucosa. The possibility of recurrence is great, but experienced laryngologists are convinced that, by continued removal of the growths, it is ultimately possible to get rid of the disease completely.—*British Medical Journal.*

HEROIC TREATMENT OF INCOMPLETE ABORTION.—Two papers in the March number of the *Jürnal Akûsherstva i. Jenskikh Bolĉsnei*, by Dr. Fisher and by Dr. Khazan, deal with the treatment of incomplete abortion by thoroughly scraping out the interior of the uterine cavity with a sharp spoon. Neither of these physicians has found it necessary to use an anesthetic during the operation. Dr. Fisher places the patient on the back, Dr. Khazan on the back or left side. The most careful disinfection is carried out by both, Dr. Fisher using a double-current catheter passed into the uterus, Dr. Khazan mopping out the cavity with sponges. The former practitioner does not find dilatation of the os necessary, while the latter uses, if required, Hegar's bougies or tents After the uterine cavity has been scraped quite clean, it is again disinfected, Dr. Khazan going so far as to mop it out with a solution of perchloride of iron. The vagina is plugged, and ergot or ergotine administered. Dr. Khazan makes the patient lie on her face for the first two days.—*Ibid.*

IODIDE OF POTASSIUM IN THE BRONCHO-PNEUMONIA OF CHILDREN.—The expectant plan, now most commonly employed in the treatment of catarrhal pneumonia, is certainly not the ideal method for the cure of this affection, to judge from the high rate of mortality attendant upon it. Yet it is the one generally recommended by writers upon children's diseases, and, indeed, seems to give about as good results as most of the alleged specific methods proposed from time to time by various therapeutic enthusiasts.

In the *Bulletin Genéral de Therapeutique* of June 30, 1887, Dr. Zinis, of Athens, writes concerning the value of potassium iodide in certain cases of this affection. He has found it, in doses of from 8 to 23 grains *per diem*, according to the age, to reduce the temperature 3° or 4°, to soften the cough, to facilitate expectoration, and to reduce the frequency of the respirations very noticeably. He thinks that the course of the disease is materially shortened, and that convalescence, when once established, is more rapid. The best results are obtained when the remedy is given at the very outset of the disease, and when the malady is of an acute sthenic form. In the broncho-pneumonias secondary to measles or whooping-cough, or in those occurring in weak or cachectic children, the remedy has given but indifferent results in the author's experience. Its effects are also more favorable, he states, in children over one year of age. In addition to the internal use of iodide of potassium, the writer employed dry cups and flying blisters in certain of the cases in which these external remedies seemed indicated.—*N. Y. Medical Record.*

PHYSOSTIGMINE IN CHOREA.—Riess has recently warmly recommended hypodermic injections of physostigmine in chorea, and claims that the duration of the disease is thereby shortened to only fifteen days on an average, reckoning from the beginning of treatment. In a few cases the choreic symptoms ceased in five or six days. One sixty-fourth of a grain of escrine sulphate was injected twice a day, and a strengthening treatment generally was adopted. The injections were found useless in very severe forms of chorea with a fatal tendency, also in cases of habitual chorea in adults. Among Riess' forty cases four belonged to the very severe forms; the rest were cured by physostigmine. This success induced Riess to try the influence of this drug in other hyperkineses, and partial success was obtained in tetanus, tremors, paralysis agitans, multiple sclerosis of brain and spinal cord, Charcot's post-hemiplegic chorea, and, finally, in one case of hysteria in the male with extreme emotional excitability and remarkable increase of all reflex movements. The preparation used was supplied by Merck, of Darmstadt.

THE PRODUCTION OF ALCOHOLIC CIRRHOSIS OF THE LIVER.—At the meeting of the Society of Biology, held in Paris, July 16th, Straus communicated the results of some experiments which he had made, with the assistance of his interne, Blocq, on the artificial production in animals of alcoholic cirrhosis of the liver. His experiments pertained to twenty-four hares, in the stomach of which he had directly injected a daily dose of half an ounce of a mixture of absolute alcohol and methyl alcohol, diluted with three parts of water. Immediately upon receiving this injection, the greater part of these animals fell as if paralyzed, and for several hours they lay in deep coma. When, after the expiration of a certain time, these animals were killed, the experimenters invaribly found the usual lesions of alcoholic gastritis, thickening of the mucous membrane, ecchymotic petechiæ of the surface, etc., but what especially attracted their attention was the pathological condition of the liver. This organ did not present to the naked eye any very marked alterations; it was smooth on surface as well as on section; the acinic, nevertheless, where surrounded by a reddish gray line, and in animals that had been kept most of the time intoxicated for three or four months, the ultimate perilobular portal spaces were found infiltrated with embryonic cells. In hares that had been kept constantly subjected to the action of the poison for seven or eight months, the hepatic lobules were completely surrounded by a crown of connective tissue cells, and the experimenters had before them typical cases of annular perilobular and monolobular cirrhosis.—*Boston Medical and Surgical Journal.*

TAPE WORM.—Dr. Ira Harris, of Tripoli, Syria, writes as follows in the Albany Medical Annals: In this country one in every five have tape-worm This is owing to the custom of eating so much raw meat and defecating in the open fields. Nothing disgusts an Arab so much as to see "Franks" use a house (water-closet). They are in the habit of going up some unfrequented street, if in the town; if in the country, just where they happen to be. . . I call to mind seeing several chickens foraging themselves with the links of tape-worm Ever since, I will not eat chicken unless I *know* they have not been raised in a country village

When I first came to Syria I prescribed for these people the western doses, and failed every time Suspecting the drugs, I sent for fresh. I gave larger doses. In fifty-five cases I have succeeded in removing the head, and thus relieving the patients permanently of their unwelcome tenants.

Mrs. A. had been suffering from tape-worm for twenty five years. She said that she had not been free from pain during that time. She ate immense quantities of food; appetite never satisfied. Has taken medicine from many doctors, which resulted only in her passing yards of tape-worm.

I gave her filix mas in doses I had been taught to give. She passed eighty-two feet of worm; afterward the symptoms were worse. Three months after she passed a few links. I gave her fresh extract of pomegranate root. Later seventy nine feet of worm. Still she was not relieved I got some fresh ethereal ext. filix mas I ordered the woman to eat nothing but milk for three days. On the night of the third day I gave her eight comp. cath. imp. pills; the next morning, at daylight, filix mas, ʒiss; in half an hour a second ʒiss; one hour after, castor oil, ʒj. Twenty minutes after I had the pleasure of seeing that she had passed a quantity of something that was once a tape-worm, now looking as if it had been used pretty roughly. The head was found after some search. With the removal of the head all symptoms disappeared.

Since then I have treated fifty four cases, and have given in the greater number ʒiij dose of the drug. There seem to be two conditions to insure success—a few days of milk diet and a brisk cathartic, followed by large doses of *fresh* male fern. I have never seen any bad results following the use of this drug given in these doses. If I should have a case that did not succeed after the above treatment, I would give a third ʒiss sometime during the day. Of course I would watch my patient for any ill symptom. But I do not apprehend any necessity of giving more than ʒiij of the drug, providing the diet has been strictly followed out and the drug is fresh.

CESAREAN SECTION ON A COW.—C. Hamilton, of Ringgold, reports a successful cesarean section made on a cow with a deformed pelvis, the result of a railroad accident. He made the incision a little to the right of the median line, commencing just at the edge of the mammary gland and cutting up, making an incision six or seven inches long—the cut in the uterus as small as would possibly admit the escape of the calf. The membranes had not ruptured, and he waited a few minutes for the bag of waters to form so as to dilate the cut in the womb. He then ruptured the membranes and delivered the calf, and in a few minutes it was walking around. He closed the wound of the uterus with a catgut suture, as also that in the abdominal walls, and in a few minutes after the cuts were closed the cow got up and let the calf suck. There was little swelling or suppuration. The lochial discharge commenced at once from the vagina, and continued its usual time. She gave sufficient milk for the calf all the time, and made a good recovery.—*Southern Practitioner.*

ON THE COMMUNICABILITY OF TYPHOID FEVER THROUGH THE AIR.—At the Medical Society of the Hospitals, session July 22d. M. Devaiz communicated the fact of an epidemic of typhoid fever which he had recently witnessed, and which seemed to show that this disease may sometimes be propagated by the air as well as by drinking water. The water of the locality had, in fact, been examined very thoroughly.

without any micro-organisms being discovered. On the other hand, the dejections of the first patient attacked had been thrown, without previous disinfection, into a privy, near which slept the three persons who next fell victims to the disease. It seemed, therefore, probable that the typhoid germs had been transported by the air, and that it was to this vitiation of the air that the communication of the disease in at least some of the instances was due.—*Boston Med. and Surg. Journal.*

Acute Hepatic Cirrhosis.—The varieties of hepatic cirrhosis are very numerous, and the tendency is rather to increase their number, while the desire must surely exist to put this seeming chaos into order. Much light has yet to be thrown on the acute forms of cirrhosis, with which we seem to be becoming more and more familiar. M. Debove has contributed an account of an interesting case to the *Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris*, No. 13. The whole duration of the clinical history was not more than five months, and for the first three of these the woman, aged thirty-four, merely complained of some general symptoms not specially referable to the liver, the first symptom of affection of which organ was marked jaundice, and on admission to the hospital it was found that the liver extended five fingers' breadth below the margin of the thorax. Fever, jaundice, hemorrhages, enlargement of the spleen, diarrhea, and but slight ascites, were the principal symptoms. Three weeks before death the liver progressively diminished in size, till at the necropsy it was found to be level with the edge of the ribs. The cirrhosis had chiefly affected the periphery of each hepatic lobule, and was in this sense allied to the monolobular form of Charcot, for the amount of connective tissue increase was about sufficient to replace that of true liver tissue, so that the volume of the organ was not far from normal. Further examination showed, however, that a peri-cellular sclerosis had also taken place, and that the connective tissues around the portal system as well as around the hepatic veins were increased; the surface and section of the organ were granular. The remaining true liver cells were either fattily degenerated, recalling the fatty cirrhotic type, or else granular and atrophied. Debove believes that neither alcohol nor syphilis was operative in the causation of the disease, which he was unable to explain.—*London Lancet.*

The Influence of Meteorology on Measles.—Dr. Cameron, in his second quarterly report on the health of the borough of Huddersfield for this year, discusses the high mortality from measles and the accompanying lung diseases. He reminds his authority that on a former occasion he pointed out that an epidemic of this disease had coincided with a somewhat high barometric pressure, an increasing temperature, considerable variation of day and night temperature, and a scarcity of rain. The poison of measles was, according to his view, prevented by the heavy atmosphere and the absence of wind from getting freely away from the close courts and yards; these courts also lacked the wholesome washing effect of rain, and the infection was kept active by the warmth of day, and the slight condensation produced by the chill of night, and spread rapidly to those who were susceptible of its influence. These conditions, which were characteristic of a similar mortality in 1882, were repeated, some of them in an aggravated form, in 1887. During the second three months of the year the barometer has averaged 30 in., and in none of the thirteen weeks included in that period has it averaged less than 29.6 in. The daily range of temperature has averaged 18° F., and the total rainfall has been only 3.09 in. Together with such rain as fell during the seventh, ninth, and in the week following the termination of the quarter, there was a marked reduction in the rate of mortality. Latterly, whooping-cough seems to have been similarly influenced, and during the quarter as a whole those two diseases caused together a mortality reaching 3.08 per 1,000. The details thus contributed are of the greater interest because precise information as to the relation of infectious and other diseases to meteorological conditions is so scanty.—*Ibid.*

Cocaine Internally.—Dr. L. Frey, of Bêkés, having as a patient a young woman who had mitral insufficiency and hypertrophy of the heart associated with hyperesthesia of the body, which caused extreme irritability of the stomach and constant vomiting, so that for some days she had scarcely twenty minutes' intermission, tried digitalis, opiates, ice, cold applications, etc., but without any effect. He then determined to try cocaine internally. He gave three quarters of a grain dissolved in water, which was followed by a cessation of the attacks of vomiting for two hours; another dose gave the patient six hours' rest, after which a violeut attack of vomiting came on. The third dose stopped the vomiting altogether, after which all the other symptoms from which the patient suffered rapidly improved.—*Ibid.*

Carcinoma of the Rectum.—Prof. Koenig has had an extensive experience with cases of carcinoma of the rectum, and has come to the conclusion that when the disease has extended high up it is better not to resort to desperate measures with a view to its removal, but prefers now, in such cases, to make an inguinal colotomy by dividing the bowel completely, emptying and closing the distal end and stitching the proximal end into the wound. This operation affords great relief, prolongs life, and is preferable to the more doubtful results obtainable by extirpation of a high rectal cancer. I believe Koenig only echoes the sentiments of all prudent and conscientious surgeons on this subject. There is a limit to radical measures in this as well as in malignant affections of other organs.—*Dr. E. N. Senn, American Journal of Medical Association.*

CALOMEL AS A DIURETIC IN NEPHRITIS.—Practitioners formerly did not like diuretics in the acute form of nephritis, because they believed they would increase the disease. Experience has taught us that it is not quite so bad and that you may give diuretics without fear. The preparations mostly used at the present time are scilla, either as acet. scillæ or tincture scillæ, in conjunction with a salt, for instance, potash preparations, especially nitrate of potash, acetate of potash. Digitalis in an infusion of 0.3–0.5 in 1–1½ days is the best preparation to excite diuresis; of course you must make a pause after having given digitalis during a few days. The newest diuretic which we possess is calomel. Before the first publications about it appeared a few months ago I knew about it from a private communication. Professor Tendrasik, of Pesth, has observed in incidentally giving calomel to a patient suffering from syphilis, that he became subject to a strong diuresis. He pursued the matter, and there appeared indeed an effect of calomel quite surprising, and up to the present generally unknown. We have had several times in our clinic, after the publication of the treatise of Professor Tendrasik, to confirm that in several cases. That effect is seen in patients with heart disease. The increase of the diuresis in two cases was surprising; the edemata quite disappeared. The patients having already several times taken digitalis without any essential result, the diuresis could not be raised higher than 400-600, at the most 1,000 cub. cent. in twenty-four hours, and in the case of this patient the dropsy has totally disappeared through repeatedly giving calomel. He was in a desolate state, and after caffein, salicylate of soda, and digitalis had been given in vain, the calomel had effect. But a strict method must be adopted in its application. We give calomel in doses of 0.2 each daily three or four times for three or four days consecutively; of course you prescribe at the same time from the beginning chlorate of potash for a mouth wash, or, under circumstances, internally, to prevent as much as possible the affection of the gums and mucous membrane of the mouth. If calomel acts you see generally at once, sometimes quite suddenly, a flood of urine coming on the second or third day, seldom later; the patient who had, up to that time 400-700 cub. cent. during fourteen days, has on the third or fourth day after taking calomel suddenly a diuresis of 2,000; it has even been up to 5,000 cub. cent. daily. That flow lasts for a few days, the calomel is intermitted, then the diuresis decreases, and after a few days it shows the former proportions; in the mean time the dropsy may have disappeared considerably. If there is no affection of the gums you give the calomel again after a few days, and you will observe the same effect; this may be repeated several times, till, under the influence of such a great secretion of urine—some few liters daily—the dropsy has disappeared. In some cases the calomel happens not to have a distinct effect in the first series of applications, but only in the second series. You must therefore not give it up at once, even if the first trial is in vain, but prescribe it again for a second trial; if, however, the second trial was unsuccessful, you must abandon that drug. There might be some unpleasant issues of the application of calomel: (1) Stomatitis may begin. (2) It causes diarrhea. In those cases you give the calomel best along with opium. The original prescription of Professor Tendrasik was to give it with jalap, but the latter is not necessary. The pulse curve and the cardiac activity are not much changed after using calomel; it is interesting to see that only the diuresis is increased. In which way calomel acts as a diuretic we do not know at all. Professor Tendrasik's observation is very interesting and important, as it has discovered a heretofore unknown feature in the action of calomel.

Generally, however, the diuresis will not have the same effect in a case of nephritis as with diaphoresis, but it will be of use in such a case if you combine diaphoretic with a diuretic treatment.—*Prof. Nothnagel, London Medical Press.*

ACTION OF THE SUN'S RAYS ON GLUCOSE. At a meeting of the French Academy of Sciences, M. Pasteur referred to some recent researches by M. Duclaux on the decomposition of sugar by the rays of the sun. This investigator had observed that when an alkaline solution of glucose, either in contact with the air or completely protected from the atmosphere, was exposed to the action of the solar rays, decomposition took place without the intervention of any ferment. Carbonic acid and alcohol were produced in just the same proportion as when sugar is fermented by yeast. This observation, although of no great practical importance, is of considerable scientific interest.—*Zymotechnic Magazine.*

Eustachian Obstruction in Diabetes.—Writing in the *Revue Mensuelle de Laryngologie, &c.*, No. 6, on the troubles of hearing sometimes complained of by diabetics, M. Miot comes to the conclusion that the swelling, with edema of the Eustachian tube, is a complication of diabetes which does not yield to ordinary treatment, but is amenable to the continuous current, which diminishes the congestion of the mucosa and allows of the introduction of bougies, as well as the employment of galvano-caustic agencies. The last-mentioned means appears to be the most efficacious and rapid method of restoring the functions of the canal.—*London Lancet.*

Successful Removal of a Tumor from the Spinal Canal.—On Thursday, June 9th, Mr. Victor Horsley removed a tumor from the spinal canal of a gentleman aged forty. The diagnosis of compression of the spinal cord by a morbid growth was made by Dr. Gowers, who saw the patient with Dr. Percy Kidd. The patient was suffering from paraplegia, which commenced gradually six months ago, and from pain around the chest of four years' duration. Sir William Jenner afterwards saw the patient, and confirmed the diagnosis. Dr. Gowers suggested that an attempt should be made to remove the growth. From the history of severe neuralgic pain in the back and along the course of the left sixth dorsal nerve which preceded the paraplegia, it was considered probable that the growth commenced in the posterior root of the nerve, and afterwards produced pressure on the cord. The operation was performed by a long incision in the midline of the back, having its center about the fifth dorsal, down to the spines of the vertebræ. The muscles were cleared off from the laminæ and retracted. The spines were removed by bone forceps, and then the laminæ trephined. An incision was made through the membranes and the cord examined, a tumor about the size of the tip of the little finger being eventually found on the posterior root of the nerve about the level of the third dorsal vertebra. This had pressed the cord forward and to the right, producing a deep depression in its substance. It was removed with the nerve to which it was attached. The incision through the membranes, which was at least three inches long, was not sutured; the wound in the soft parts was closed with sutures and drained. Strict antiseptic precautions were taken at the operation. Since the operation there has been no rise of temperature, and the pain has diminished. The painful spasmodic action of the muscles of the lower extremities from which the patient suffered has diminished, and there has been less rigidity of the legs, but the paraplegia continues. The growth, of a pinkish color, elastic and vascular, has not yet been submitted to microscopical investigation.—*Ibid.*

Gastric Movements.—Dr. Grundzach reports in a Polish medical journal some cases of "atrophic catarrh" of the stomach where the glandular elements were considerably atrophied, and where the gastric juice existed only in very small quantity, and contained scarcely any hydrochloric acid. Notwithstanding this, the gastric movements were normal, so that the food did not remain longer than usual in the stomach, thus proving, according to the author's views, that the acidity of the contents of the stomach is not, as many physiologists teach, the cause of the gastric movements.—*Ibid.*

Chinese Anesthetic.—A curious anesthetic used by the Chinese has recently been made known by Dr. U. Lambuth, in his third annual report of the Soochow Hospital, says *the Provincial Medical Journal.* It is obtained by placing a frog in a jar of flour and irritating it by prodding it. Under these circumstances it exudes a liquid which forms a paste with a portion of the flour. The paste dissolved in water was found to possess well marked anesthetic properties. After the finger had been immersed in the liquid for a few minutes it could be pricked with a needle without any pain being felt, and numbness of the lips and tongue were produced by applying the liquid to them.

Scarlatinal Kidneys.—The interesting contribution to the Pathological Anatomy and Histology of Scarlatina, appearing in the pages of the Birmingham Medical Review, from the pen of Dr. George Crook, whilst confirming the general truth of Klein's histological observations on the changes in the arteries and arterioles, states that the hyaline change is not met with so frequently or so well marked as Klein described. "Interstitial changes are undoubtedly rare in the first week, but in two cases their presence in the form of cellular infiltrations around the glomeruli and in patches along the vessels in the labyrinth could not be overlooked."—*London Lancet.*

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. IV. SATURDAY, SEPT. 3, 1887. No. 5.

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A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

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SPLENIC FEVER VACCINATION.

The procedures of Pasteur for conferring immunity against certain infectious diseases seems to have been fairly carried from the domain of physics to that of psychology. The mental condition of the various parties who are participating in the discussion the question has given rise to is really the most perplexing thing in the whole matter.

Hitherto it has been widely regarded as a settled fact that protection against splenic fever had been secured by vaccination.

But now so eminent an authority as Robert Koch comes out boldly and declares it useless. He insists that it furnishes neither a complete nor permanent protection against splenic fever.

Pasteur states that of 200,000 head of cattle vaccinated annually there is a loss of one half of one per cent, while of those not vaccinated there is a loss of five per cent. Koch intimates that no such census has been taken, and asks for the authority and records. After six years trial he says it has been virtually abandoned in Italy, Austro-Hungary, Russia and Germany. Prof. Schütz, of Berlin, has collected a number of authentic statistics from various points in Germany which go to show there is no material difference in the percentage of deaths among the vaccinated and the unvaccinated animals, while the deaths directly from vaccination sometimes reach nearly one per cent. In nearly all the countries named it has been abandoned. Koch concludes that vaccination for splenic fever is not worth what it costs, and under existing conditions is not of the smallest practical utility.

The decision of this question could not but have a strong bearing on the decision of the utility of vaccination against hydrophobia, for in favor of this there would be a strong analogy if the effectiveness of splenic fever vaccination were confirmed.

If all parties to the controversy relied on the same statement of facts, we could all divide with satisfaction to ourselves at least. But when Pasteur and his followers present one set of statistics, and his opposers another almost directly opposite, we have to determine the trustworthiness of the parties before we can determine the question. Are the facts on the one hand colored by French fondness of glory, or on the other by German prejudice, or does vaccination behave one way in one country and a different way in the other? Certainly no one is required to form any thing more than a provisional judgment in the matter until the facts are presented in a less questionable shape.

SALICYLATES IN RHEUMATISM.

Recently Mr. Greene, of Wellingford, reported a case of rheumatism in the London Lancet, in which, after giving 166 grains of salicine per day, or 1,280 grains in all, he abandoned the treatment as inefficacious. Dr. T. J. Maclagan, who, more than any other, is the originator of the treatment, thereupon writes to the Lancet, stating that in his judgment the doses given in the case were totally inadequate, and that the medicine should not be condemned till twenty to forty grains had been given every hour. Small doses, Dr. Maclagan insists, are of no use. He also insists that those who criticise the action of drugs with which his name is associated shall not do so till they have first tried them in the doses recommended by him.

It is only a reasonable request Dr. Maclagan makes, but the fact stands, that of the thousands of cases reported all over the world as promptly relieved by salicylates, very few have had other than the small doses which he characterizes as useless. One side or the other is mistaken. In part certainly Dr. Maclagan is, in the character of claims he makes for the salicylates, or the medical profession shows a strange perversity in allowing patients to suffer while experimenting with other remedies when the means are ever at hand to control rheumatism as certainly and promptly as quinine controls malaria.

MEDICAL POLITICS.

The Medical Press and Circular gently hints that certain evils have crept into the British Medical Association that threaten to seriously impair its usefulness. The evils spoken of are electioneering efforts to obtain the distinctions conferred in filling the offices, the crowding out of efficient scientific work by those who would have themselves heard, but who have nothing to contribute to science, the practice of having papers announced in the programme to be read, when the authors at the same time know there will not be opportunity to read them, and in fact have not prepared them, but only seek the advertisement the publication of the programme will give them.

Those who have been attendants of society meetings in this country can readily recall the counterpart of the picture drawn so pointedly by our British contemporary, if indeed so mild a term as counterpart may be used. In too many instances the methods of ward politics are carried into medical societies, and the term medical politician has even appeared in scientific journals as rather a compliment than a reproach.

It is not easy to discover a marked difference between the methods of ward politicians and those that are in vogue in many parts of the country in medical societies.

In many States the impression one gets from society workings is that regular cliques are organized for the purpose on the part of the members of promoting each other to office. In such cases elevation to office, if indeed the securing of office in this way can be called elevation, does not mean the possession of the highest scientific attainments, great personal worth, or the ability to advance to the greatest extent the good of the society, but only that the aspirant is an active and efficient wire-worker and has a business motive in being brought before the public.

Those who are most capable of advancing the good name and welfare of the profession have come to be regarded as only proper material to fill up the background and act as foils for the purpose of setting off the jewels of medical politics.

The attempt to reform this state of things is not a very hopeful undertaking. For some time the evil has been rapidly growing.

It is no wonder, then, that empty seats are complained of, nor is it strange that sometimes the managers have resorted to the expedient of publishing in the list of attendants the names of eminent men, who, if present, could have been so only in the spirit form.

If the work of our societies is to result in valuable contributions to science, there is pressing need of such a reorganization and change of method as will put the practice of medical politics quite out of the question.

We would bespeak the attention of our readers to an article entitled *A Novel Departure in Advertising* in this issue, page 160.

A New Parasite.—Dr. Doroteo de Arenas, in *El Ensayo Medico* (Caracas, No. 53) reports the discovery of a hitherto unknown human parasite in the hair of a Venezuelan woman. The parasite is small, thin, very active, and marked along the back and sides by a fine white line, the color of the body being a dark red. They are said to multiply very rapidly, and to be common in the interior of the country. It is to be regretted that no detailed account of the size and structure of the parasite is given.—*London Medical Press.*

Notes and Queries.

Hospital Notes.*—Case of peripheral general neuritis with paralysis, due to alcoholism, complicated with tuberculosis. Entire absence of pain. Death on eighteenth day.

H. M., male, barber, aged twenty-five, entered the hospital June 22, 1887, with paralysis of the extensors of the arms and legs, marked edema and dyspnea. Examination made by Dr. F. C. Wilson revealed limited tuberculous deposit in the apex of left lung. Temperature 103° on second day after admission, between which point and the normal temperature it ranged until death. Patient seemed in good flesh, but this was partly due to edema. There had been pain over the left side, which recurred at times, but in the arms and legs there was no pain at any time. No loss of sensation perceptible. The tendon reflex was absent. There was very little cough. The patient stated that he had drank only beer, but of that he had taken from twenty to thirty glasses per day for several months.

The edema, dyspnea, and paralysis gradually extended till July 4th, when he died.

Autopsy revealed a cavity at the apex of left lung of the size of a pigeon's egg, with considerable infiltration, a circumscribed inflammation of the adjacent pleura, and a small quantity of serous fluid in the pleural cavity. The brain and spinal cord presented no perceptible lesion.

The marked feature was the recurrence of multiple peripheral neuritis, absolutely without pain.

W. E. Huth, German, aged forty-seven, was admitted to the hospital, in the year 1884, for progressive locomotor ataxia. He stated he had never had syphilis, and attributed his condition to a fall from an elevator some time in 1884. The diagnosis of an abdominal aneurism was made out, and he has been utilized for clinical demonstration of aneurism before successive classes since that time. Iodide of potassium was given for a short time after admission in doses of fifteen grains three times a day. This, however, he could bear but a short time on account of idiosyncrasy. Under the enforced rest, however, the aneurism has gradually diminished in size, until now it can be made out only with great difficulty. Whether the small amount of iodide of potassium used had any influence in the result it is not easy to say. But as the disappearance of the aneurism has been gradual and steady, it seems that the prolonged rest has mainly been the efficient agent. The ataxia still progresses.

Professor Sir George Macleod's Advice to Young Graduates.—He thinks medical men of the younger generation have much to rejoice at in being educated under what he terms the New Dispensation. By the discoveries of Pasteur medicine has been revolutionized and advanced more than in the preceding century. Such work he considers ample answer to Sir William Hamilton's scornful question, "Has the practice of medicine made a single step since Hippocrates?" There is a wonderfully true paragraph descriptive of the triviality of the circumstances that may determine the career of young men just going out into the world, including the advice not to be too fastidious in the choice of a first appointment so that it secures experience. He enforces this by reference to the disproportion between the few vacancies by death arising in the profession and the large additions to it by the new registrations. The annual average of the latter for eleven years is 1,152; of the former, 588. The waiting-time for practice is to be used in reading much, but in working more, as Carlyle advised. The reading must be general as well as medical, and Baconian carefulness in the observation and record of facts must be practiced, if Sir William Hamilton's words are not to be realized, "I think it more than possible that in fifty or a hundred years the business of a physician will not be regarded even in England as either a learned or a liberal profession." Perhaps Sir George scarcely does full justice to the profession in his allusion to the slipshod language and inconsequent reasoning of medical discussions. There is, of course, much truth in this, but there was never more severity of reasoning in medical discussions than there is now. His caution to men who have taken honors in the University is well put—not to make too much of that fact. His advice against a premature or ill-assorted marriage is much needed. It is not fair to the woman, and it sorely cripples the man. Not less opportune is his warning against mere fashion and quackery in the prescription of new drugs. He commends the high teaching of Hippocrates and the oath administered to his pupils, "With purity and holiness I will pass my life, and practice my art." Before his peroration Sir George Macleod sounds two apt notes of counsel: First, "In your dealings with professional brethren, avoid quarrels and petty jealousies," though he denies that such things are more common in our profession than in others. The second has reference to the "grave responsibility" of prescribing stimulants and narcotics: "My decided impression is that intemperance in such things is largely on the increase. . . . Avoid these agents, then, if possible, or at least limit and control their use, and do not risk incurring the anathema of having contributed to the ruin of a fellow-creature."—*London Lancet.*

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*Louisville City Hospital. Service of Dr. D. T. Smith, reported by Dr. M. Collins.

Retinitis Pigmentosa Treated Electrically.—At the twenty-third annual meeting of the American Ophthalmological Society, Dr. Myles Standish, of Boston, reported this case:

The patient was a woman thirty-three years of age, and was myopic—150 D. She had worn glasses since she was seventeen years of age. When first seen, April 14, 1886, her sight had been failing for three years, and for the last three months had failed very rapidly, so that she could not go on the street alone after dark. On ophthalmoscopic examination characteristic patches of retinitis pigmentosa were found in the periphery of the fundus of each eye. Her vision was R. E $\frac{12}{40}$, L E. $\frac{12}{50}$, and the fields of vision were limited to less than 20° in the vertical and horizontal axes. The only treatment has been the use of constant current, of such strength as could easily be borne. This has been applied once in five days during the last fifteen months. Her present vision is right $\frac{12}{30}$, left $\frac{12}{15}$, and the fields of vision have now vertical and horizontal axes of 70°. She now goes on the streets after dark with safety.

Dr. Samuel Theobald read a paper on the Pathogenesis of Pterygium. The generally accepted theory of Arlt, that pterygium has its origin in a marginal corneal ulcer to which a tag of conjunctiva has become attached, he thought was untenable, because if this were its usual mode of origin, pterygium would be found approaching the cornea from every possible direction, since marginal corneal ulcers are not apparently more frequent in one position than in another. It is known, however, that such is not the case, but that pterygium is almost always situated directly over the recti muscles, and that in a very large proportion of cases it is over the rectus internus. The more recently proposed theory of Poncet, that pterygium is due to the presence of microbes which tunnel their way under the corneal epithelium is open to the same objection, for this also assumes the existence of a precedent corneal ulcer. The view long held, that conditions which tend to induce chronic hyperemia of the conjunctiva favor the formation of pterygium, he thought was well established. Assuming that this view is correct, are there reasons why localized hyperemia of the conjunctiva should be of frequent occurrence where pterygium usually forms to the nasal side of the cornea? This was answered affirmatively. The close connection between the vessels of the recti muscles and those of the anterior portion of the conjunctiva was referred to, and it was pointed out that the determination of blood to these muscles might influence the blood-supply of the overlying conjunctiva, and that this would be the case especially with the recti interni, since they were the largest of the straight muscles, and in close relationship with conjunctiva because attached to the sclerotic nearer to the cornea border than any of the others. Abnormality in the distribution of the blood-supply of the internal recti muscles and of the overlying conjunctiva, and, more frequently still, disturbance in the normal relationship between convergence and accommodation, such as insufficiency of the internal recti muscles, the different varieties of ametropia. These were regarded as the usual causes of pterygium through the localized hyperemia of the conjunctiva to which they give rise.

RHUS-POISONING.—The Board of Health of Philadelphia has acted commendably in ordering the removal of poison-ivy from cemetery grounds, on account of the many cases of poisoning which have lately occurred. If a similar rule were made and enforced with regard to all public parks, it would save much annoyance and suffering. There is, it is true, a great difference in the individual susceptibility to the effects of the poison, the resulting dermatitis venenata being in some a trifling affair, in others seriously threatening life. A case was reported to the County Medical Society of this city, some time ago, in which proctitis and peritonitis resulted from extension of inflammation from the anus, to which a leaf had been applied after defecation while on an excursion in the woods. In some instances direct contagion has been traced, as where a physician, after employing himself in pulling up a few weeds in a cemetery, stopped to see a patient and dressed a fractured forearm on his way home. Both physician and patient subsequently suffered with acute dermatitis, which was supposed to be erysipelas by the latter.

Owing to the different degrees of effect produced, varying from nothing at all up to a very acute and extensive inflammation, an opportunity for exact comparison of the value of remedies is wanting; hence the number of specifics. The first indication seems to be to counteract the poison (toxicodendric acid) by the application of an alkali (sodium carbonate, bicarbonate, borate, or hyposulphite; and the second is to relieve the dermatitis by sedative and anodyne applications. The combination of carbolic acid with oxide of zinc ointment (in the proportion of twenty to thirty minims to the ounce) has answered admirably in checking the spreading inflammation and relieving swelling and pain. It has been suggested by a correspondent of another journal that the alkaline solution of sodium carbonate be applied by dipping a piece of bread in it and placing it over the inflamed area; subsequently, if it become dry, water could be dropped upon it; thus making it in effect a bread-poultice. As it is claimed that it certainly affords relief to the pain, it seems that this is a good suggestion.—*Philadelphia Medical Times.*

CLAIRVOYANTE DIAGNOSIS.—A physician in this city recently had under his care a case of typhoid fever. As the patient did not progress very rapidly toward recovery an officious relative consulted a notorious clairvoyante regarding the patient. She affected the usual "trance state" and gave the following curious diagnosis, which was copied by her daughter, who acts as amenuensis: "As I examine your case I find the membrane of the head has a watery fluid secreted in the membrane, which produces a sort of confusion and a roaring at the ears. The blood seems to lose its force of blood as it reaches the base of brain. This is caused by the strings of the kidneys drawing on the spinal nerves. This also is the cause of pain about the shoulder. I find both kidneys have been strained and the casings swell. I find the liver congested and filled with slime. This at times passes to the stomach, windpipe, left lung, and throat. The left lung settles on casing of heart. I find a watery fluid between the heart and casing which causes the right ventricle and center valve to be weak. The cough is caused by the left lung settling on the stomach. The stomach I find has been weakened by medicine, and I find a sort of white powder secreted in the casing of stomach and membrane of bowels, which is the effect of medicine. I find a little difficulty with bladder. I find a catching pain from hip to knee, which has been caused from kidneys. I find the blood in a stagnant state, and the blood only quivers through the limbs.

"Take No. 5 with 10 Stomach Drops 5 times a day, and Tea of Sweet Balm and Poor Robin's Plantain."

As the clairvoyante had described only one symptom—the cough—in the case, the prescription was turned over to the attending physician.—*Buffalo Med. and Surg. Journal.*

ORIENTAL MEDICINE.—There is a remarkable divergence in the methods of treatment which prevail between the Hindoo doctor and his Mussulman rival; perhaps this may be owing to professional jealousy; it is, however, the case that where the former prescribes heating medicines, the latter insists upon the patient taking cooling ones. It is not surprising that we should be told that a great many of the physicians are stupendously ignorant, and commit fearful havoc among the superstitious people who believe in their infallibility. So much is this the case that the unenviable title is sometimes given them of "killers of men." Despite, however, their ignorance they seem to be able to effect good occasionally, and, in certain diseases, such as asthma, phthisis, dysentery, and ophthalmia, their treatment is even said to be successful. Again, although they can lay no claim to any knowledge of anatomy, the native Hindo doctor, cuts for stone, removes cataracts, and extracts the fetus from the womb. *London Medical Press.*

Dr. Whittaker on the Specialists.—It is a lamentable fact that the least work was done by the specialists, there having been notable exceptions, but the fact remains. Sessions, whose subjects have been confined to specialists in medicine, have often been characterized by the absence of the men in our city who present themselves to the profession and the people as especially qualified in these matters. The profession views with suspicion a specialist who does not show sufficient interest in his department to attend the medical society on such occasions. Such specialists are like Thompson's razors, intended only for the trade. It is a question if the general practitioner is justified in turning over to these specialists any of his cases.—*Address before the Cincinnati Academy of Medicine; Lancet-Clinic.*

Pasteur's Hydrophobia Treatment.—Dr. C. R. Drysdale, senior physician to the Metropolitan Free Hospital, London, says: I freely admit that I did not like Pasteur's intensive method, because it was not founded on experiments on dogs; but I must say that, if I were bitten by a mad dog to-day I would go, as I have advised others to do, to Paris to-morrow, and undergo the inoculation process, because the evidence from experiment and statistics are both strongly in its favor.

Colleges in Good Standing.— At the quarterly meeting of the Illinois State Board of Health, held July 8, 1887, the following resolution, offered by Dr. Clark, of the board, was adopted: *Resolved*, That the phrase, "medical colleges in good standing," in the first section of the Act to Regulate the Practice of Medicine, approved June 16, 1887, is hereby defined to include only those colleges which shall, after the sessions of 1890–91, require four years of professional study, including any time spent with a preceptor, and three regular courses of lectures, as conditions of graduation, and shall otherwise conform to the Schedule of Minimum Requirements heretofore adopted by the board.—*Medical and Surgical Reporter.*

The Mortality of Physicians.—According to the experience of the Life Insurance Company of Gotha (*Deut. Med. Zeit.*), out of the whole number insured there was a mortality of 11.53 per cent. Infectious diseases, diseases of the lungs, and apoplexy preponderated. Of the infectious diseases, typhus carried off a part of the younger physicians. Of ten hundred and fifty-two deaths, there was only one from poisoning by a dissecting wound, but nine other cases of blood-poisoning; eight of erysipelas, one hundred and fifteen of typhus, fourteen by suicide, and four of melancholia.—*Medical and Surgical Reporter.*

An Epitaph: From a tombstone in the cemetery at Winchester, England (Medical and Surgical Reporter):

"In memory of —— who died of a violent fever contracted by drinking small beer when hot. May, 1764. Aged 26.

"Here sleeps in peace a Hampshire Grenadier,
Who caught his death by drinking cold small beer.
Soldiers, be wise from his untimely fall,
And when ye're hot drink strong or na't all.
An honest soldier never is forgot,
Whether he die by gunshot or by pot."

Scenes at Executions.—No one can pity the despicable coward who, having murdered his victim in cold blood, crouches in horror before the scaffold on which the penalty of his crime is to be paid; but it is discreditable to our administration of justice that the execution of the last dread sentence of the law should be the occasion of a scene in which the malefactor has to be "half-dragged and half-carried by five warders" to doom, and when on the scaffold struggles so violently that the executioner has difficulty in performing his hideous task and is "quite unnerved." We can not desire that the punishment of death—so long as it is inflicted for deterrent purposes—should be shorn of its terrors to the public mind; but we do most certainly think that there should be no room or occasion for scandal in connection with its infliction, and it *is* a scandal that the victim should be able to recoil or resist. Electricity and the lethal chamber have been again and again suggested as alternative modes of putting murderers to death. The authorities do not, it would appear, feel justified in adopting either of these expedients. We confess that our sympathies are with those who entertain a fear lest luxurious and easy modes of execution might deprive the gallows of the very little moral influence it at present exerts. Meanwhile, it must not be forgotten that something is due to the sentiment of humanity which is supposed to pervade that section of the nation which is not, at least overtly, criminal.—*London Lancet.*

SAWDUST FOR DRESSING WOUNDS.—Dr. L. S. Pilcher uses and recommends sawdust as a material which combines all the *desiderata* for a wound dressing and is always available. It forms a comfortable cushion for the parts, is absorbent, does not cake, and favors the desiccation of the discharge. Made into pads, it is easy to handle and is susceptible of complete purification. If fresh, it is naturally surgically pure, and could be applied at once to the wound. If it is to be preserved for any length of time, it can be treated with a solution of sublimate and dried before using.—*Quarterly Bulletin.*

ACETONURIA IN CHILDREN.—Dr. Baginsky has published a communication on acetonuria in children. Acetone is found in the urine of some children in health, but in infinitesimal quantities. It appears in greater amount when the temperature rises in the course of febrile disease. It originates in albumen in process of decomposition. Some have affirmed that acetone causes paroxysms of eclampsia in children. It is true that an enormous amount of acetone is found in the urine of children suffering from convulsions. It is doubtful, however, whether acetone is the cause or the effect of eclampsia. Dr. Baginsky believes that it is the effect, for he has proved that acetone is quite harmless if introduced into the system of a dog, either by the mouth or subcutaneously. *N. Y. Medical Record.*

MAD DOGS AND HYDROPHOBIA.—In the Department of the Loire, France, during 1886, fifty-three persons were bitten by mad dogs. Of this number one only died of rabies. Twenty-six were treated under Pasteur's directions, and the rest either received no treatment at all or were cared for by quacks. It was among the latter number that the death occurred.

DEATH OF DR. RANDOLPH.—While bathing in the surf at Atlantic City on Sunday, August 21, Dr. N. A. Randolph, of Philadelphia, was drowned. Dr. Randolph was professor of Physiology in the University of Pennsylvania, and one of the editors of the Medical and Surgical Reporter. He was thirty-eight years of age; his death cuts short a career of more than common usefulness.

REGISTRATION.—The Health Board of the City of New York have decided to use the registration of deaths and vaccinations as a check on physicians who do not report births. Provisions have been made to refund quarterly to physicians in private practice the amount of the outlay in postage in reporting births and contagious diseases.

BONE REPLANTATION.—According to Dr. E. C. Spitzka, of New York, buttons of bone removed by trephining may be re-inserted under such antiseptic precautions that, even if union fails to occur, no harm will result; and also that union may occur in young persons even when perfect coaptation is not secured.

THE EDITORS' BANQUET.—The American Medical Editors' Association will tender a banquet to the editors and distinguished guests in attendance upon the International Congress at Washington, to be held Monday evening, September 5, 1887. The price of a ticket is $15.

THE TREATMENT OF NEURALGIA BY MEANS OF INTENSE COLD.—George W. Jacoby, M. D., says that we possess two refrigerants, chloride of methyl and the fluid carbonic acid, which can be easily and practically utilized in the treatment of neuralgia.

ITCHING PILES.—The intolerable itching of external piles is said to be relieved by the application of a lotion composed of turpentine, 2 parts, spirits of camphor and colorless tincture of iodine, of each 3 parts.

MISADVENTURE.—An English apothecary recently mixed hydrocyanic acid instead of hydrochloric acid in a prescription by mistake. The result was the usual one.

To exterminate the rabbits, which have become a plague in Australia, it is proposed to propagate a contagious disease among them, and the experiment is to be first tried on Torren's Island.

A PRINTER up in Canada is said to be one hundred and three years old. He has made so many typographical errors during his career that he is afraid to die.

THE Faculties of Paris contain, altogether, nearly 11,000 students, comprising 3,696 medical students, of whom 593 are foreigners, 108 are women.

IT is said that a tooth, immersed in a solution of the tincture of iron in eight parts of water, has its enamel entirely destroyed in one hour.

THE RED CROSS.—The next international conference of the Red Cross Society will be held at Carlsruhe on September 19th.

ONE HUNDRED AND SIXTY-FIVE people died in Chicago, July 15th, 16th, and 17th, from the effects of heat.

THE American Rhinological Society meets in Washington, D. C., September 1st, 2d, and 3d.

PROF. VIRCHOW has arranged to accompany Dr. Schlieman on his visit to Egypt next spring.

THE HOSPITAL SUNDAY FUND in London has reached a total of £35,000.

SPECIAL NOTICES.

NERVOUS PROSTRATION. (Wm. J. McConkey, M. D.)—I have had much success in treating a case of nervous prostration in a young medical student, who, from close application to his studies, had brought on a loss of sleep, nervous palpitation of the heart, appetite almost gone, and memory very much impaired, with extreme bodily weakness. I at once had him to go into the country for change of air and scene, and suspended all studies and put him on Celerina, with sulphate of quinine in small doses (one dram to eight ounces of the Celerina). I was glad to find that my patient in a few days began to pick up, appetite improved, sleep was soon refreshing, and the mental and nervous prostration passed happily away in about ten days. I urged him to go on steadily with the same treatment, and kept up a strict regimen, with recreation, music, mind kept perfectly quiet, for several weeks, and am now able to inform you, with the aid of Celerina and other hygienic influences, my patient has been restored to perfect health.

Mapleton, Ohio.

THE uncertain strength of Coca leaves makes this drug very unreliable, unless a preparation is used which we know to be made from good leaf. Robinson's Wine Coca is prepared by percolating assayed Coca leaves with Malaga Wine, and has always been found entirely satisfactory.

A NOVEL DEPARTURE IN ADVERTISING.—Believing that the advertising of medicinal preparations often fails of its purpose, viz., to clearly and intelligently present to physicians their special advantages, pharmacal or therapeutic, on account of the fragmentary and imperfect manner in which the facts are usually conveyed in such advertisements, Parke, Davis & Co. propose to inaugurate rather a novel departure in advertising. (See cover last page.)

It is their intention to publish in the advertising pages they occupy in medical journals a series of what they term plain talks to physicians, in each issue taking up a certain class of preparations and pointing out the reasons why they deserve to be prescribed, until all their preparations shall have thus been presented.

The excellence of the products of this house are well known, and it is to be presumed that their long experience in the manufacture of medicines will enable them to say in these informal talks something of real interest and benefit to their medical friends.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. IV. [NEW SERIES.] LOUISVILLE, KY., SEPTEMBER 17, 1887. NO. 6.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

REFLEX NERVE INFLUENCE AND ITS RELATION TO THE CAUSATION AND CURE OF DISEASE.

BY D. T. SMITH, M.D.

Lecturer on Medical Jurisprudence in the University of Louisville.

It is easy to perceive that as complexity of organization and differentiation of function advanced with the progress of evolution, such nervous connection became necessary among different organs as would enable them to act together instantaneously and for the common good. This necessity was supplied by the acquirement, on the part of the nervous system of animals, of the power of transmitting excitation to the nearest distributing center, and out along other paths to produce irritation and contraction in the muscles whose contraction might be necessary for the proper protective act. Along with this also was developed the power to direct to injured parts such alterations of nutrition, such reparative influence, as the good of the organism might require.

This property of the nervous system, known as reflex influence, may be regarded in two opposite aspects as bearing upon the relation of the individual to its environment, according as such relations take the character of defense or offense—escape from danger or the pursuit of prey.

Since the great majority of actions of even the strongest and most ferocious animals are and have ever been defensive, it follows that we should expect to find the structures and functions relating to defense more complete than those of attack.

Keeping this deduction in view, let us glance severally at the different structures and functions connected with the special senses and general sensation. First, as to the sense of smell. Through this sense comparatively few articles of food could reveal themselves as poisonous, while the animal pursued would be expected to be enabled by other senses than that of smell to escape from the pursuer. Consequently we find the sense of smell most acute in the carnivora; and they alone can afford to be possessed of strong odors. Those animals which seem destined for prey are possessed of but slight odor, being thus deprived not so much to adapt them to the relish of their captors, as to enable them to elude the scent of their pursuers; only just enough odor being developed in them to secure the gregariousness necessary for race perpetuation.

It is not necessary that the nerve of smell should have extensive and intricate structural relations with other nerves. And this, in fact, we find to be the case. The olfactory nerve is little else than a lobe of the brain, with most limited connections with other nerves at its origin, its only direct connection being by a few fibers with the optic nerve in the optic thalamus.

The sense of sight is also employed mainly in the pursuit of sustenance. True, like the sense of smell, it is of advantage for escape, but it is clearly of greater advantage to the pursuer than the pursued. It might be urged also, as in regard to the sense of smell, that the best sight belongs to carnivorous animals.

The optic nerve might then also be expected to be wanting in the intimate structural connections at its origin that would favor the most extensive reflex activity. And such we find to be the case, its direct connections of origin within the brain being only with the olfactory nerve in the optic thalamus and some filaments of the third nerve in the tubercular quadrigemina.

In this connection with the third nerve is illustrated the utter helplessness of the apparatus of sight alone for its own protection, in as far as this sense is represented by the optic nerve. The entirety of the movements directed to the protection of the eye itself seems placed in charge of the third, fifth, seventh, and sympathetic nerves. For instance, it is of vital importance that the eyelids should be closed instantaneously in the face of danger, and that the pupils should contract quickly in the presence of strong light in order that the retina may be protected. Now we find the circular fibers of the iris supplied by the third nerve, a rare instance of involuntary muscle supplied by a cerebro-spinal nerve, and evidently designed to secure for it the power of more rapid motion than can be given it by the sympathetic. The facial supplies the orbicularis palpebrarum, and secures for it the power of quick and rapid movement; yet what would all this avail if the retina had to depend upon its own deep connections in the brain with these structures for calling them to its aid in case of threatened and impending danger. The olfactory alone might be fully informed in time, and it could give no help, and the small deep connection with the third might not suffice for even efficient contraction of the circular fibers of the iris. But fortunately the third and fifth, which are both intimately connected with the seventh in the medulla, send each a twig to the ophthalmic ganglion, and from this ganglion a sentinel in the shape of a small filament is sent to penetrate the optic nerve along with the arteria centralis retinæ, and it is this, doubtless, which signals to the various guards the approach of danger and secures the required protective action.

It might have been noted also, that the olfactory nerve is not intrusted with the office of its own protection, but that the proximity of dangerous substances is manifested to the branches of the fifth nerve, spread out upon the schneiderian membrane.

Passing to the sense of hearing, we find that this is one of great value to the individual and the race, both in a defensive and an offensive aspect, for in the pursuit of prey and in escape from danger it is alike useful. We should expect, then, that the auditory nerve, unlike the two just considered, would be found possessed of very extensive anatomical connections with nerves of the greatest importance to the vital functions. Investigation shows that this is exactly what occurs. It has quite an extensive origin from the medulla and the adjacent parts of the brain about the floor of the fourth ventricle, the great citadel around which the forces of life are marshaled.

In the case of the nerves which minister to the sense of taste the rule holds equally good. This sense is one of vital importance to the well-being if not to the existence of the individual. The exigencies of the case seem to have required that this sense, whose office it is to preside over the selection of all the food of the system, and is therefore eminently defensive, should not be intrusted to a single special nerve, but that its nerve-supply should come from different sources, and be provided with extensive deep connections in the cerebrum and its adjuncts.

It must clearly have been of advantage to an animal, when it experienced the pain of an injury, to be able by a prompt reflex act to withdraw the affected part from the cause of the pain. But it must have been of still greater advantage to the individual to have that reflex power extend to all co-ordinated organs, that it might on occasion remove at once the whole body from the source of danger or place itself in a proper attitude for its protection and defense. Low down in the scale of animal life, even before the struggle for existence became a battle, the accomplishment of this end was of primary importance. When the first aquatic vertebrates as they moved forward came in contact with particles of food, the first act was to turn to them, and to do so the contraction of the muscles of the opposite side was a prerequisite, hence the stimulus was caused to cross over from the point of the sensation to the muscles of the opposite side, and thus very early in the scale decussation of the fibers in the medulla was determined. For at first there were no nerve filaments, and nerve force passed directly from cell to cell.

A principal endowment of animal life from a very early period, if not from the beginning, must have been common sensation.

In the lowest forms of animal life, the vital functions are performed indifferently by any part of the surface. It has been said of the ameba that it eats without a mouth, breathes without lungs, walks without legs, digests without a stomach, and defecates without an anus. In short, it performs all the functions of its order of life without being possessed of a single special organ.

Gradually as the several functions became specialized, and special organs were developed for their performance, the surface relinquished participation in the active work; but the integument which succeeded to its place retained to a very considerable extent a controlling influence over the several functions. Even in the animal so high up in the scale as the batrachian, respiration may still be carried on entirely through the skin. Higher up in the scale this function is transferred almost completely to the lungs. Yet even with man oxygenation of the blood is carried on to some extent through the skin, as is readily seen in the change which takes place from blue to red shortly after death. But much more important than this direct action of the skin is the control it exerts over the lungs through reflex influence by reason of the arrangement of its nerve-supply.

The inspiratory effort incited by dashing water into the face is matter of common observation. But the continued healthful performance of the function of respiration seems to require the access of the atmosphere to the skin to keep up a kind of reflex stimulation among the internal organs. The fatal effects of varnishing the skin of animals, and the case of the boy who died from the effects of being covered with gold-leaf, are known to every physician. I am not able to conclude with Carpenter and others that the fatal results in these cases are due to the retention of poisonous materials in the blood that would otherwise have been excreted through the skin. I conceive that if all the exudations of the skin for the period named were collected at once and thrown into the blood, they would not produce death or even serious derangement, since it is known that entire failure of the function of the kidneys may be endured for a week or more before death results.

The rather would I believe that the function of control by reflex influence, which the skin has retained from a remote past over the processes of nutrition, has been abrogated—a function which stands like a placard upon the door of a deserted shop, announcing to the passing oxygen that the business of respiration has been removed from the old stand, the integument, to its new office, the better ordered mucous membrane of the lungs. And not only is oxygenation probably thus affected, but likewise the functions of all the secreting glands and the entire complex process of assimilation and nutrition.

One instance after another during the last few decades has been added to the list wherein reflex influence has figured as a physiological phenomenon, a cause or symptom of disease or a means of curing disease, until now the mere catalogue would be tedious. Still it seems to me that numerous additions can be made to the list, and many of them of the most interesting character.

A class of these may be represented by the ever-present corn. Its production by a nutritive stimulus, due to reflex nerve influence, is as intelligent as the act of the individual upon whose toes corns are developed to push away another individual who has trodden on his feet. The difference is, that one is a conscious and the other an unconscious ac. The shoe presses on the the too sensitive nerve, and it at once proceeds to have a stronger barrier of epidermis thrown up for its protection. Sometimes in this, as in other instances, the irritation is kept up until proliferation of nerve tissue takes place and the supply becomes too great and too easily irritated. This is well illustrated in the case of irritable ulcers where the nerve-supply becomes too great for healing—watching, like angry bees in a hive that has been harassed, and preventing the work of repair.

Ulcers of the duodenum, as found in burns, are, there is reason to believe, the result of reflex influence. In 1872, in an article read before the College of Physicians and Surgeons, of Louisville, the writer maintained the view that these ulcers were caused by derangements in the nutrition of the duodenum produced by a disturbance in the reflex influence habitually exercised over it by the skin. The view then urged was that all the internal organs are affected to a greater or less degree in the case of extensive superficial burns, but that the resisting powers of the parts other than the duodenum are for various reasons greater than those of the latter.

Thus the lungs and stomach are more vascular than the duodenum, and their constant motion prevents in a large measure the congestion which might result in inflammation, while the rest of the small intestines are more free from cerebro-spinal nerve-supply, the upper part of the duodenum alone receiving any marked innervation of this kind. Therefore, when reflex congestion in the case of extensive superficial burns impairs the vitality of the duodenal mucous membrane, the irritability imparted to it by branches of the pneumogastric causes it to react with such degree of inflammation as allows the digestive fluids in contact with it to produce an ulcer.

I take it to be the result of an arrangement of nerves ingeniously suggested by Prof. Ranney, following in the footsteps of another able medical philosopher, Dr. Hilton. "It would therefore," writes Prof. Ranney, "be an additional confirmation of a general nerve distribution if the distribution of the abdominal nerves to the intestinal covering of peritoneum could be fully verified, since the structures which assist in moving the adjacent organs, the abdominal muscles, would be supplied from the same source as the organs, as well as the skin over the muscles.

As instances of symptoms of disease that are due to reflex nerve influence, among numerous others may be mentioned tympanites in affections of the abdominal viscera, and the wiry pulse in peritonitis.

In perfect health there is no need that gas should be passed from the alimentary canal except by absorption. This absorption has become gauged exactly to the vermicular motion of the bowels. But on occasion there occurs great tenderness of the peritoneum or even of the ovary, or of some other very sensitive organ in close relation to it and liable to be disturbed by peristaltic action. At once the tender and highly sensitive part appeals to its nervous center and begs for rest. The answer comes back from headquarters in an order to the muscles of the intestines to cease their peristaltic action and be quiet. Thereupon gas, whose production is not so easily regulated, begins to accumulate and tympanites is the result.

But if the part be very sensitive, as the inflamed peritoneum, after having this request granted, it finds that still the blood, which indeed it largely needs, is coming in great gushes and the throbbing brings pain not easy to endure, it sends up a prayer for further rest. Whereupon the ever-heedful providing center sends orders through the vaso-motor nerves to hold themselves in leash and allow a steady and even though rapid stream of blood to go to the aid of the injured peritoneum. Hence the wiry pulse of peritonitis.

Or it happens again that the crippled kidney fails to separate from the blood the poison that all the tissues are ceaselessly throwing into it. Thereupon there goes up a murmur of dissatisfaction from every cell of the organism, a cry for a better supply of pabulum in the blood-stream. The better quality is not to be had, so the answer is given in orders to the left ventricle to redouble its efforts and force the blood through the renal capillaries to be purified, or to make up to the tissues in quantity what is lacking in quality. The arterioles, accustomed to standing guard for the capillaries, contract in vain to prevent the vitiated blood from passing; for the tissues must have it, and the heart must send it even to the sacrifice of its own well-being. So in anemia, so in the hydremic state of pregnancy, so in all cases where either poverty of blood or obstruction of the urination leaves hungering tissues inadequately supplied. The cells of the tissues cry for blood and the cells of the brain command the heart to supply it. Hence the tense pulse. Hence the long list of hypertrophies.

"Intelligence!" do I hear?

Intelligence then let it be, for one may not arrogate to the little store our consciousness gathers all the intelligence in nature.

But to our theme. In whatever way the nerve interaction of the various internal organs with the skin may be kept up, I am convinced that a very large proportion of curable disease is produced by reflex disturbance and impairment of the vitality of internal parts caused by injury to the terminal filaments of the nerves distributed to the skin.

As an abundant illustration of this, we may instance the variety of diseases commonly attributed to colds. What a world of pathology is involved in this class of affections!

We are commonly taught to believe that the immediate effect of a cold is to arrest excretion by the skin, and that the deleterious matters thus thrown back on the circulation poison the blood and so produce various forms of disease.

But by the theory here presented, and which I believe to be the true one, the impairment of vitality produced by the interference in the cutaneous nerves is at once reflected to all the correlated internal nerves, and their relation to the deep parts supplied by them is at once unfavorably modified. It may be supposed that the nice balance between the habitual necrosis and removal of tissue and its repair is disturbed; that a greater quantity of molecule is cut off from vitalizing nerve influence than can be carried away by the force of leucocytes ordinarily provided for the part, and that this dead element retained in the system results in disease either local or general.

Without adducing other instances with which indeed medical literature abounds, let us next proceed to the indications of treatment drawn from the view herein advocated. In this department I can do little more than favor the practices generally in vogue. For instance, we all agree in poulticing an abscess in order to hasten its maturity. Let us see that we also agree as to the rationale of the action of the poultice in such a case. Surely no part of the poultice in such a case is absorbed into the cavity of an abscess that may be two or three inches or more beneath the surface; yet we know that maturity of the abscess is perceptibly hastened by the treatment.

The rationale seems to me to be based on the principle of the distribution of nerves, enunciated by Hilton and already referred to, viz., "that the nerves which supply the skin supply also the muscles under the skin." The action is purely reflex. The vitality and nutrition of the nerves of the skin are affected in such a way by the action of the poultice that they either deliver the necrosed molecules at the seat of disturbance over to the phagocytes with increased facility, or the phagocytes themselves are rendered more active in their digestion and removal.

On the other hand, no one would place a blister over an abscess or expose it to other irritation, otherwise a reaction is produced and a continuous irritation that causes only pain and harm.

Sometimes it becomes quite as important to destroy the capacity of nerves for pain by excess of sudden pain, as in other cases to soothe. This is illustrated in the treatment of slight burns.

It has been said in ridicule of homeopathy that, if its teachings are true, burning a burn should cure it. Now it happens that burning a burn does cure it, and how?

First, we shall inquire why a burn pains more than a clean cut involving the severance of the same amount of tissue. Nerves are among the slowest of tissues to yield to the destroying force of heat. In a burn, then, we may assume that nerves by the process of burning are not squarely severed at the ends, but in an uneven or jagged manner. This leaves a much larger functioning surface exposed than if they were squarely severed. If, then, I hold a slight burn near the fire until the termini of the nerves are evenly paralyzed, I remove excessive capacity for pain, take away the irritation that invites an excess of blood, and thus induce prompt repair. So if we use a solution of soda, of salt and alum, or bisulphide of carbon, and apply it until all jagged ends of the nerves are evenly robbed of their pain-bearing power, we do much, on the same principle, to promote healing.

The success of this treatment in the case of limited burns would suggest the propriety, in extensive superficial burns, of putting the patient under the influence of ether, and applying chemicals to change the character of the injury; preferably, the substances already named.

The indications for the treatment of pneumonia and other visceral inflammations drawn from these principles, and seemingly well borne out by experience, are to make external soothing applications combining heat and moisture, and the giving of anodynes for the alleviation of any remaining pain. But blister never, for it does harm and only harm.

In the treatment of dysentery no time should be lost in depriving the exposed nerve filaments of the colon and rectum of their excessive irritability. This can in most cases be in large measure accomplished by the injection of a strong solution of subsulphate of iron, or a properly guarded solution of nitrate of silver.

In the treatment of continued fevers, where a coated tongue indicates the coated stomach, an extensive employment of reflex influence might be resorted to It is well known that the flow of gastric juice into the stomach is promoted by the taste, sight or smell of agreeable food. It seems a reasonable deduction, therefore, and one that is fully borne out by experience, that all the senses should be catered to in the most agreeable manner possible in such diseases.

Expectorants seem often to act in a reflex way. On taking an agreeable expectorant into the mouth, we frequently find that mucus is loosened and discharged in a much shorter time than would seem to be required for the substance to be absorbed into the blood and then carried to the seat of the trouble, if indeed this could happen at all.

But the field is a vast one, and no more can here be done than to merely indicate the harvest of truths to be gathered within its boundaries.

HYPNOTISM.—In France people are now being mesmerized for all sorts of diseases, and even bad habits. The latest outcome is curing of the drink habit by what is called "suggestion," the patient, while "under control," must avoid intoxicating liquors; it is claimed that success has been thus achieved.

Societies.

NINTH INTERNATIONAL MEDICAL CONGRESS.*

Held in Washington, D. C., September 5, 6, 7, 8, 9, and 10, 1887.

MONDAY, SEPTEMBER 5TH—FIRST DAY.

The Congress assembled in Albaugh's Opera House, and was formally opened at 11 A. M. by His Excellency Grover Cleveland, President of the United States, who said: "I feel that the country should be congratulated today upon the presence at our capital of so many of our own citizens and those representing foreign countries who have distinguished themselves in the science of medicine and are devoted to its further progress. My duty in this connection is a very pleasant and a very brief one. It is simply to declare that the Ninth International Medical Congress is now open for organization and for the transaction of business.

Dr. Henry H. Smith, of Philadelphia, Chairman of the Executive Committee, next named the officers of the Congress.

REPORT OF THE SECRETARY-GENERAL.

Mr. President: According to the precedent set at former sessions of this body, the Secretary-General must make a report of the work performed since the session last preceding, but I will only occupy the time of the Congress for the briefest possible space.

It is now a matter of history that in May, 1884, the American Medical Association met in this capital, and passed a resolution inviting the Congress to honor America by holding its next session in the United States.

At the meeting in Copenhagen, in August, 1884, when the question came up for disposition, Washington was selected. The committee, having borne the invitation and secured its acceptance, returned home, and immediately began the work of organization, and shortly before the meeting of the American Medical Association in New Orleans, in May, 1885, they completed the preliminary organization. But it transpired that this committee were unable to frame an organization satisfactory to the majority of the members of the Association, and after some discussion a resolution was adopted which authorized the appointment of additional members of the committee, and, in accordance with our American system of representation, the committee consisted of one member from each State and Territory of the Union, to which was added one representative from each of the three public medical services, and these new members were elected by the State and Territorial delegations. The enlarged committee met in Chicago a few weeks after the New Orleans meeting of the American Medical Association, and several of the members of the first committee were present and acted harmoniously with the committee. In a short time, however, each of the original committee had withdrawn, and the management was thus deprived of their experienced and valued services. The committee have, therefore, had to contend against more than the ordinary difficulties attending so great an undertaking, and its present success is due entirely to the zeal and energy of its chairman, Prof. H. H. Smith, of Philadelphia, and the unflagging interest and industry of the remaining members of the committee.

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*From advance slips supplied by the Medical Record, of New York, from its special report.

Dr. A. Y. P. Garnett, of Washington, D. C., Chairman of the Local Committee of Arrangements, then announced the arrangements for the social entertainment of the members of the Congress and their families.

THE ADDRESS OF WELCOME

was delivered by Hon. Thomas F. Bayard, Secretary of State. In the name of his fellow-countrymen he expressed gratification at the visit of the delegates to Washington. The world is becoming acquainted and international intimacy is growing; a spirit of common brotherhood is increasing, so that the word "stranger" will soon be obliterated from the vocabulary of civilization. If letters constitute a republic, science is a democracy. In the United States individual enterprise has produced great scientific institutions without the aid or interference of government. The proceedings of the Congress will be watched with interest by the sixty million people of this country.

RESPONSES

were made by the following gentlemen: Dr. William H. Lloyd, of the Royal Navy; Dr. Leon Le Fort, of France; Professor Unna, of Germany; Professor Semmola, of Italy; Dr. Charles Reyher, of Russia.

Dr. Lewis A. Sayre, of New York, occupied the chair during the delivery of

THE ADDRESS OF THE PRESIDENT OF THE CONGRESS.

Dr. Davis began by paying an eloquent tribute to the memory of Austin Flint, M. D., LL. D., and continued as follows:

With a full consciousness of my own deficiencies, and still with a heart overflowing with gratitude, I thank you for the honor you have bestowed in selecting me to preside over the deliberations of this great and learned assembly. It is an honor that I appreciate as second to no other of a temporal nature because it has been bestowed neither by conquest nor hereditary influence, nor yet by partisan strife, but by the free expression of your own choice.

The living human body, the chief object of your solicitude, not only combines in itself the greatest number of elemental substances and the most numerous organs and varied functions, so attuned to harmonious action as to illustrate the operation of every law of physics, every known force in nature, and every step in the development of living matter from the simple aggregation of protoplasm constituting the germinal cell to the full-grown man, but it is placed in appreciable and important relations with the material objects and immaterial forces existing in the world in which he lives.

Hence a complete study of the living man, in health and disease, involves a thorough study, not only of his structure and functions, but more or less of every element and force entering into the earth, the air, and the water, with which he stands in constant relation.

The medical science of to-day, therefore, embraces not only a knowledge of the living man, but also of such facts, principles, and materials gathered from every other department of human knowledge as may increase your resources for preventing or alleviating his suffering and of prolonging his life.

The time has been when medical studies embraced little less than the fanciful theories and arbitrary dogmas of a few leading minds, each of which became for the time the founder of a sect or so-called school of medicine, with his disciples more or less numerous. But with the development of general and analytical chemistry, of the several departments of natural science, of a more practical knowledge of physics, and the adoption of inductive processes of reasoning, the age of theoretical dogmas and of medical sects blindly following some more plausible leader has passed away, leaving but an *infinitesimal* shadow yet visible on the medical horizon.

The address closed with an appeal for the collective investigation of the phenomena of disease.

The Congress then adjourned.

Tuesday, September 6th—Second Day.

The Congress was called to order at 10 A. M. by the President.

Dr. Austin Flint, LL. D., of New York, delivered a general address on

FEVER, ITS CAUSES, MECHANISM, AND RATIONAL TREATMENT.

After discussing the subject of animal heat, the following conclusions were reached by the author:

1. Fevers, especially those belonging to the class of acute diseases, are self-limited in their duration, and are due each one to a special cause, a micro-organism, the operation of which ceases after the lapse of a certain time.

2. We are as yet unable to destroy directly the morbific organisms which give rise to continued fevers; and we must be content, for the present, to moderate their action and sustain the powers of resistance of patients.

3. The production of animal heat involves oxidation of parts of the organism or of articles of food, represented in the formation and discharge of nitrogenized excrementitious matters, carbonic acid and water.

4. As regards its relations to general nutrition and the production of animal heat, water formed in the body by a process of oxidation is to be counted as an excrementitious principle.

5. Fever, as observed in the so-called essential fever, may be defined as a condition of excessive production of heat, involving defective nutrition or inanition, an excessive production and discharge of nitrogenized excrementitious matters and carbonic acid, with waste and degeneration of the tissues, and partial or complete suppression of the production and discharge of water.

6. Aside from the influence of complications and accidents, the ataxic symptoms in fevers, the intensity and persistence of which endanger life, are secondary to the fever, and are usually proportionate to the elevation of temperature. These symptoms are ameliorated by measures of treatment directed to a reduction of the general temperature of the body.

7. The abstraction of heat by external cold and the reduction of temperature by antipyretics administered internally, without affecting the special cause of the fever, improve the symptoms, which are secondary to the pyrexia.

8. In health, during a period of inanition, the consumption of the tissues in the production of animal heat is in a measure saved by an increased production and excretion of water.

9. In fever, the effects of inanition, manifested by destruction and degeneration of tissues, are intensified by a deficient formation and excretion of water.

10. Alimentation in fever, the object of which is to retard and repair the destruction and degeneration of tissues and organs, is difficult mainly on account of derangements of the digestive organs; and this difficulty is to be met by the administration of articles of food easily digested, or of articles in which the processes of digestion have been begun or are partly accomplished.

11. In the introduction of hydrocarbons, which are important factors in the production of animal heat, alcohol presents a form of hydrocarbon which is promptly oxidized, and in which absorption can take place without preparation by digestion.

12. Precisely in so far as it is oxidized in the body, alcohol furnishes matter which is consumed in the excessive production of heat in fever, and saves destruction and degeneration of tissue.

13. The introduction of matters consumed in the production of heat in fever diminishes, rather than increases, the intensity of the pyrexia.

14. As the oxidation of alcohol necessarily involves the formation of water and limits the destruction of tissue, its action in fever tends to restore the normal processes of heat-production, in which the formation of water plays an important part.

15. The great objects in the treatment of fever itself are to limit and reduce the pyrexia by direct and indirect means; to limit and repair destruction and degeneration of tissues and organs by alimentation; to provide matters for consumption in the abnormal production of heat, and thus to place the system in the most favorable condition for recuperation after the disease shall have run its course.

General Meeting—Wednesday, September 7th—Third Day.

Dr. Durante, of Rome, Italy, one of the Vice-Presidents, occupied the chair.

Dr. Mariano Semmola, of Naples, Italy, delivered a general address on

BACTERIOLOGY AND ITS THERAPEUTIC RELATIONS.

The object of medicine is to cure disease. To cure diseases we must know the causes that produce them. The external causes are visible and tangible, but to discover the internal invisible causes is the aim of medical science. To solve this problem we must employ the true method of solving all problems—the experimental method. Doctors lost themselves in fantastic speculations before this method was known. The wonderful progress of physiology has been made in the light of experimental methods. When morbid conditions had been studied, instead of going on with the same careful and slow research, physicians wanted to hurry on, because they wished simply to cure the sick. To apply the experimental method and at the same time go fast is, in the nature of things, impossible. Thus it happened while physicians were making experiments in the laboratory, instead of having patience to master their studies, they came at once to a conclusion. New hypotheses had to be made, and without knowing it they began again the same errors that had characterized the medicine of an earlier day. New systems thus came into the field, that were the opposite the experimental method. If medicine is to progress and be a science, it must not leave the experimental method, otherwise there will be only renovations of error and loss of time.

The error of the day is bacteriology considered as the key to all pathology. Bacteriology should be studied, because it teaches what is in the microscopical world, of which we had never dreamed the existence—a world in which man lives, and which is filled with enemies of mankind. We drink millions of microbes in water, and respire millions in the air. Sometimes these microbes effect us—perhaps killing in a few hours.

When we strive to cure the sick, we must proceed cautiously, because before there has been a careful demonstration, if we attempt to deduce a remedy, there is danger of doing harm to the sick instead of curing them. This is the great harm modern bacteriology does. Doctors concluded at once that microbes were the cause of disease, whereas, in many cases, microbes are but effects of disease. We ought to reproduce the disease artificially by a microbe before concluding that it is the cause. The experiments made have not given any satisfactory results, except in carbuncle and tuberculosis. To conclude hastily that this or that microbe is the cause of any disease, is but to ignore or set aside the experimental method. The demonstration which the experimental method demands in this case would be complicated, because we would not only have to know that the microbe existed, but we would have to know what was the condition of the blood necessary to the culture of that particular microbe, and science tells us that, for the present, this is a problem we can not solve.

We know very little of the normal condition of the blood, and biological chemistry is still in its infancy. Man can not separate himself from these millions of parasites among whom he lives. That bacteriology may be a guide in the cure of disease, we must not only learn all we can of the microbe itself, but, more important than all, must ascertain all that is possible of the conditions of the field of culture. The science of the present knows nothing of the conditions of these fields of culture in living organisms. It is thus evident that in the present condition of bacteriology it can not be taken as a guide for the treatment of internal diseases. The older schools of medicine spoke of organic dispositions, or tendency to such and such a disease. This expression had no meaning, but it expressed the fact. When bacteriology speaks of a need for a special field of culture it says the same thing, because we do not know of what the field of culture consists. Therefore, this can not be called a science, because a science is never composed of unknown things; it goes from the known to the unknown. If a man supposes a fact instead of demonstrating it, the phenomena of nature are not reproduced. When he resorts to hypotheses the power of man disappears. If nature's laws are not respected, the telephone does not work, the electric light does not flash, the steam-engine stops. The doctor, then, is the only one who pretends to become the master of nature without knowing her laws. Referring again to the failure of medicine to follow up a discovery in the scientific way, with thorough research and demonstration, and its tendency to accept conclusions quickly, Professor Semmola said that modern bacteriology may lead the way to the most fruitful field of inquiry in the future, but for the present it has produced no practical results in the cure of internal diseases. It has not, he claimed, been demonstrated in what measure microbes are the causes of diseases. He therefore hoped that the younger generation would continue experimental researches with the thoroughness of method which the great masters have transmitted to us. They must renounce their preconceived ideas in medicine, and interrogate nature without torturing her. Scientific independence must be preserved. They must not proceed without measuring their steps. He trusted that his desire for scientific independence in such researches would be echoed in this land of independence.

A unanimous vote of thanks was extended to Dr. Semmola for his address.

SECTION IN GENERAL MEDICINE.—WEDNESDAY, SEPTEMBER 7TH—THIRD DAY, AFTERNOON SESSION.

Dr. John A. Ouchterlony, M. D., Louisville, Ky., read a paper entitled

THE STUDY OF THE NATURAL HISTORY OF DISEASE.

He was deeply impressed with the importance of the subject in its practical bearing upon the solidity and permanency of medicine as a science. In endeavoring to discuss this he desired not to be understood as belittling in any way that science. It is not only well to admire past achievements but also thoroughly to review the past to ascertain its deficiencies and seek the means most likely to overcome them. The study of the natural history of disease is most conducive to this end.

This subject is difficult on account of the vast scope and the complexity of disease. In looking over the ground we see in every department of pathology unmistakable evidences of the all-prevading presence of laws.

The eagerness of the physician to relieve pain and restore health often causes him to manifest distrust in nature's agency in the cure of disease. Diseases themselves are perfectly natural though not normal conditions of the living body; and the same power which called them into being may also not unreasonably be supposed to be adequate to their removal.

The truth is, nature possesses far greater power in curing disease than is admitted. A knowledge of the natural history of disease is the necessary basis upon which to estimate all medication.

The multiplicity and divergence of scientific opinions result from the neglected study and consequent ignorance of the natural history of disease.

To arrive at a proper knowledge of the natural history of disease, the co-operation of large numbers of medical men throughout the world is necessary, dissecting and attending to the various morbid conditions which affect the human race. These observations must include patients affected with various diseases modified by age, sex, occupation, etc., the duration of the malady, the events marking its course, the mortality, and mode of death. We shall then be in a position to judge with positiveness the value of a drug in shortening disease, preventing complications, or averting a fatal result. There are many obstacles to the execution of such a plan. To some it will appear culpable to withhold the assistance of art, and consign a patient to the exclusive care of nature. Independent of the consideration of the benefits to be derived therefrom, all objections to such experimentations may be fairly met by the following arguments:

First. Since we do not hesitate to subject patients in our public hospitals to treatment with medicines the action of which is imperfectly or not at all known, and consider it legitimate, it can be no less so in similar cases to simply watch the operations of nature.

Second. It must not be overlooked that nature, having inflicted disease, is also in many instances adequate to its cure. This is true of both light and severe diseases—those in their nature grave, such as malignant fevers, tuberculosis, and cancer spontaneously recover.

It is beyond dispute that the worst forms and apparently hopeless cases of fever recover unaided by medicine. Tuberculosis has most frequently been recovered from under simply good hygienic surroundings. Hence the steadily increasing favor with which the profession regards the climatic treatment of this formidable enemy of our race.

Third. The strong tendency to recovery in acute affections is often admitted, and is a good reason in many cases for reducing medicinal interference to a minimum, and in many cases amply justifies allowing the disease to pursue the undisturbed and natural course.

Fourth. The character of self-limitation which we now know to characterize many diseases should be a warning to those who entertain exaggerated ideas of the results produced by their treatment, and an encouragement to those desiring to study the natural history of disease.

Fifth. Were it not that the *vis medicatrix naturæ* is no imaginary power, but a living reality, it would be impossible to understand how it is that many quite feeble or absolutely inert medicaments could have attained such a high reputation in the treatment of various and severe affections. To-day "sage" is known to have no medicinal power, yet its history is classical, and it has received the indorsement of the learned as an effective medicinal agent. How many drugs have, like the garden sage, been lauded for imaginary virtues, but after a while have sunk, like it, into well-merited disuse. Yet, while in vogue, and medical journals were filled with accounts of their vast powers, it was the *Great Silent Mother* who wrought the cure.

Sixth. The indisputable fact that recoveries take place from similar diseases under quite opposite plans of treatment allows no other inference than that the recoveries are due to nature alone.

Seventh. When one recalls how marvelously patients sometimes get well under the rude and pernicious medication inflicted by quacks, one is forced to conclude that nature is not only adequate to remove the original disease, but also to overcome the artificial disease not infrequently superadded by the *energetic ignorance* of the practitioner.

He was well aware that the physicians can not if they would, and should not if they could, forego all medicinal treatment in the management of all the sick under their charge. But in private practice instances will occur when such a course would be both safe and proper.

The greatest field for observation is the hospital. It is well to set aside a certain number of cases and compare the results of medicinal and non-medicinal treatment.

Medical students should be taught not to believe in the exclusive power of art in the treatment of diseases, but more prominently the utility of studying their natural history.

Dr. Cronyn, of Buffalo, N. Y., discussed the paper. He thought that, as it is the natural history of disease that teaches us, attention to it is best. After all, the cure often depends upon nature, keeping the patient quiet and assisting nutrition. The laity think disease due to a poison varying in degree and intensity, according to the severity of the illness.

Dr. Hemingway, of Michigan, said: Our work is not as physicists, but as doctors, teachers. I fully agree with all that has been said in the paper. We, as physicians, have made the mistake of following the popular demand "to do something." I think we may sometimes give a little colored water. We may thus not only do the patient, but others good, who might otherwise fall into the hands of quacks. In the methods of our studies of disease we should seek to learn the cause, general progress, and termination. We ought to study to aid recovery. We can do our patients no good in any other way.

Dr. W. J. Scott, of Cleveland, O., was pleased with the paper. He believed he would have a broader foundation by studying the history of the treatment of disease, what has been done, that we may know what ought not to be done. He objected to the too free use of compendiums of medicine instead of thorough and detailed works. He had faith in medicines. He then spoke, somewhat out of line with the subject of the paper, upon the increased efficacy of our materia medica and the action of drugs upon specific diseases.

The President, Dr. A. B. Arnold, said: If we are called to see a patient in an attack of apoplexy, the friends expect active measures to be taken, when we know that the patient ought to be kept quiet to allow the clot to form. There is a form of diabetes where an excess of sugar taken into the body will be eliminated by the kidneys in the urine. We know that by taking only as much sugar as can be assimilated the patient will be cured. There is another form of diabetes where the sugar is from the animal tissues, and consequently this is not improved by such treatment. These he gave as examples showing the advantage of a correct knowledge of the natural history of disease in determining treatment.

Dr. Thomas H. Manly, of New York, believed each disease had a special course and a tendency to recover. He discussed quite freely the use and abuse of drugs.

Dr. Bell, of Minnesota, gave his idea in regard to the time to use remedies, and spoke of the relation of agents for remedies to the physician.

Dr. S. S. Green, of Buffalo, N. Y., following in the wake of the others, expressed his firm belief in the potency of drugs, but was asked by the President to confine his remarks to the subject of the paper.

Dr. Thomas Hay, of Philadelphia, Pa., stated briefly that he believed in remedies.

Dr. Ouchterlony, closed the discussion by saying that he had been edified by the spontaneous expressions of regard for remedies; there was certainty not a word in his paper in reference to this subject. "I thought when Dr. Scott said so emphatically that he believed in remedies, that perhaps he thought I did not." He wished to see an exact science, which could only be realized by the method suggested in the paper.

Dr. Pavy, of London, England, remarked, "I felt that I could not leave without saying I am heartily in accord with the idea that there is a natural history of disease, just as we each have a natural history of ourselves. By studying the natural history of disease we enable our own natural history to have its free play." He believed we need, as physicians, more knowledge of agencies to cut short the natural history of disease. We also needed medicines to influence the mind as well as the body.

SECTION IN THERAPEUTICS AND MATERIA MEDICA—Traill Green, M. D., Easton, Pa., President.

Secretaries, Dr. Frank Woodbury, Philadelphia, Pa.; Dr. Alfred S. Gubb, London, England; Dr. L. Lewin, Berlin, Germany; Dr. F. Dronke, Berlin, Germany.

MONDAY, SEPTEMBER 5TH—FIRST DAY, AFTERNOON SESSION.

Among those in attendance at the opening of the section were Drs. Edmonston Charles, Middlesex, England; J. G. S. Coghill, Isle of Wight, England; William Murrell, London, England; Charles D. F. Phillips, London, England; Ralph Stockman, Edinburgh, Scotland; T. Gnezda, Berlin; Albert Fricke, Philadelphia, Pa.; F. E. Stewart, Wilmington, Del.; Alfred D. Gubb, London, England (French Secretary of Section); and Dr. J. M. Carter, Waukegan, Ill.

The President delivered a brief address at the opening of the session, which dealt chiefly with the history of the development of the study of therapeutics and materia medica, especially referring to the labors of Dr. John Morgan, of Philadelphia, who delivered the first lectures upon the subject in this country. The instruction which he gave was based upon the teachings of the University of Edinburgh, and its traditions have largely influenced medical education in this country.

Dr. Phillips, of Ventnor, Isle of Wight, Vice-President of the Section, occupied the chair during the opening address, and at its conclusion returned thanks for the interesting remarks, and said that English therapeutists felt under great obligations to Wood, Dunglison, Stillé, and other American workers in this field. He referred to his recent labors upon the subject of the action of diuretics, the results of which he had embodied in a paper which he is shortly to read before this section.

Dr. J. M. Carter, of Waukegan, Ill., presented a "Synopsis of the Medical Botany of the United States," in which 140 orders, 620 genera, and over 1,300 species are described. The study of these is much simplified by the knowledge that the different species of the same plant resemble each other in therapeutic effect, differing principally in degree. There are similar differences in the same species, according to the conditions under which the plants are grown. Vogel has pointed out that *conine* does not appear in conium plants grown in Scotland; cinchona plants grown in hot-houses do not produce quinine. The mistletoe and the black haw he considered the most valuable additions recently made to our therapeutics, the former in urethral, the latter for uterine irritations.

Dr. Coghill had been much impressed by the value of some American indigenous drugs, but he pointed out the necessity of better appreciation of their physiological effects in order to ascertain their real value in therapeutics.

Dr. Phillips said that with reference to one drug mentioned, grindelia, he had obtained excellent results, and had a long series of notes of its successful use in asthma and emphysema with dilated heart.

Dr. William Murrell, of London, had noticed a great variation in the strength of drug preparations; as the rule, the samples sent for trial were made with more care than the ordinary article supplied on prescription.

Dr. Frank Woodbury, of Philadelphia, mentioned the employment of mistletoe in weak heart and in *post-partum* hemorrhage, owing to its effect upon unstriped muscular tissue. Rhamnus Purshiana he considered a useful substitute for rhubarb, and equally efficient as a cholagogue.

Dr. F. E. Stewart, Wilmington, Del., read a paper entitled

A PROPOSED INVESTIGATION OF THE MATERIA MEDICA OF THE WORLD BY THE GOVERNMENT OF THE UNITED STATES,

in which he advocated governmental supervision over novel therapeutic agents, and the placing of some restraint over the commercial enterprise of drug manufacturers, who introduced new drugs at extortionate prices. He also denounced the proprietary medicine business as an abuse of the copyright privilege. He suggested the establishment of a bureau for the examination of proposed new remedies, proprietary or otherwise, by the Government, and to include a supervision over the entire drug supply of the country.

Dr. H. H. Rusby, by invitation, opened the discussion. He considered the present a very opportune moment for agitating such a measure as the paper advocated. By a combined effort of the physicians and pharmacists a committee might be appointed to improve the botanical work done under the direction of the United States Government. Hitherto the amount appropriated had been lamentably inefficient, and had been carried on under the Department of Geology. It should be transferred to the Department of Agriculture. If the International Medical Congress were to pass a resolution calling upon Congress to give adequate means and energy to the botanical work, its value would be greatly enhanced, and its importance in a medical point of view would be very great.

Some remarks were made by different members denouncing the patent medicine abuse in this country.

Dr. Stewart, on closing the discussion, said that a patent was never intended to secure unlimited secrecy, but, on the contrary, to insure publication of an invention after a period of time. Moreover, the so-called patent medicines are not patented and can not be patented; they are sold under a misapplication of the copyright law.

SECTION IN THERAPEUTICS. — TUESDAY, SEPTEMBER 6TH—SECOND DAY.

Dr. Hugh Hamilton, of Harrisburg, Pa., read a paper on

THE CHEMICAL PHILOSOPHY OF REMEDY.

Activity in bacteriology and advances in chemistry suggested that there is a chemical philosophy in remedy. Doubtless germs are active in altering, by fermentation, the normal organic constituents of the blood into noxious ones not infrequently fatal (Jaksch, 1887): "To assist in clearing the system of this life-activity or aid in rapidly removing these effete bodies constitutes the aim of the remedy; so that *remedy* might be defined as the use of means to restore the body to healthy condition by prophylaxis—repair of injury and the correction of nutrition."

The success of antiseptic surgery shows the effects of the application of this principle to diseased conditions. "Germs contain albumen; so, if subjected to the physical effects of vacuum, freezing, boiling, or incineration, suffer or perish. Chemically, they succumb to the use of mineral acids, alkalies, certain salts, and organic radicals: In a word, the deprivation of oxygen, either directly, by oxidation of another substance capable of attracting and retaining it, by the loss of hydrogen, by the subtraction or substitution of elemental or approximate radicals. Consequently we can *exclude*, *arrest development*, or totally *destroy* the bacteria." The ptomaines engendered by bacteria are divided into several classes, and upon subsequent elemental analysis show that they contain certain homologues of organic radicals (Cornil and Babes). The application of disinfectants suggested antiseptics, and leads us to anticipate their modified use in internal medicine.

Clinical experience shows that remedies, although often empirically selected, are those containing efficient oxidizers active appropriators of hydrogen, or by substitution of radicals succeed in destroying the pernicious products of germs, its spores, or the consequences of its mere existence in the vital fluid.

The paper was illustrated by diagrams and charts.

Dr. Wm. Murrell, of London, England, said that the subject was one of very great interest. The philosophy of remedy was very generally passed over by the workers in therapeutics. The only ones who appeared to have done much in this field were Professor Wormley, of Philadelphia, and Dr. Stockman, of Edinburgh, who had been doing very valuable work in this branch.

Dr. Ralph Stockman said that the work referred to had been carried on in connection with a friend, he having assisted in matters of technique and experimentation. He had been struck with the paucity of information contained in text-books, especially with regard to the causation of fever and emaciation. Most writers attribute these to the breaking up of the tissues under the effect of the disease. Dr. Philip, of Edinburgh, has recently made a very interesting investigation into this condition. He found that by taking the sputum of phthisical subjects, protecting it with great care from contamination by external agents, and maintaining it for a short time at the temperature of the body, that a substance was obtainable by Stas' process which was evidently an alkaloid, a ptomaine. This substance was also detected in the cavities of phthisical lungs. When this substance was injected into mammals it produced fever and progressive emaciation, which proceeded to a fatal termination, even where the injections were discontinued. In frogs the same results were obtained, except that recovery sometimes followed. It was also found that if belladonna and atropine were administered after the new alkaloid had been injected, that the pulse regained its strength, emaciation and fever were checked, and the animal recovered. This is a corroboration of the clinical value of atropine in the treatment of phthisis, to which Bartholow called attention some years ago.

Dr. Coghill was impressed with the value of this work. In confirmation of the remarks of the last speaker, he said that the dose of atropine which could be well borne in phthisis was very much larger than in health. This seemed to warrant the opinion that there was some counteracting agent present in the economy in phthisis which was not present in health.

Dr. J. S. Sinclair Coghill, of Ventnor, Isle of Wight, England, read a paper on

CHLORATE OF POTASH.

After a historical *résumé* of the introduction of this agent into modern therapeutics, he discussed the various theories which have been advanced as to its action, and rejected the idea that it was decomposed and yielded its oxygen to the blood. A number of experiments was detailed upon the human subject, from whom nearly all the salt given was afterward obtained from the urine. "As a salt exceptionally rich in oxygen, it has, without decomposition, the valuable property *per se* by its mere presence, apparently by oxygenating or aërating the blood, and so, by restoring or exerting this vital character of the circulating fluid, influencing to a corresponding degree the nutrition and functional activity by the various tissues and organs of the body. Beyond this it does not appear to have any specific action in any disease." The beneficial effect of this agent upon inflammations of the throat and other mucous membranes has been established by experience. The ordinary lozenges are too strong and are liable to exert a caustic action upon the mouth; he uses only two and a half grains in each troche, with white sugar. This in combination with arsenic internally is almost a specific in clergyman's sore throat. It is a valuable tonic and stimulant in cases of cardiac debility and impoverished blood, as in anemia and chlorosis. It is remarkable what effect this has upon the development of the fetus, when given during the whole course of pregnancy. Several very interesting cases were cited.

Dr. H. A. Hare, of Philadelphia, said that potassium chlorate does not yield oxygen to the blood, and cited a case of poisoning in which bacteria were found in the kidneys.

Dr. J. Solis-Cohen, of Philadelphia, said that he was much pleased with the paper, and was in the habit of using chlorate of potash in diphtheria. He believed that all the chlorides were useful in this disease.

Dr. Traill Green, the President, advocated the use of sodium chlorate as a less depressing agent, all potassium salts being depressing. He asked if this salt is used in England.

Dr. Murrell said that since the publication in the Lancet of Dr. Sainsbury's paper, some years ago, the sodium salt was used very largely in preference to the potassium chlorate.

Dr. G. L. Magruder recommended potassium chlorate in catarrhal affections of the bowels in infants in combination with chalk mixture.

Dr. Frank Woodbury, of Philadelphia, Pa., said that a therapeutic agent need not be decomposed in the body in order to influence nutrition (*i. e.*, sodium chloride). He believed that the potassium chlorate has a limited range of therapeutic usefulness, within which it can not be substituted by any other salt. In some cases it is very depressing, and its indiscriminate use should be condemned, as collapse may be caused in an ordinary catarrhal pharyngitis, and thus lead to the idea that the case is really diphtheria. It is important to watch the renal secretion, since the salt is not very soluble, and where there is a deficiency of water, crystals of the salt may be deposited in the tubules and give rise to irritation and congestion of the kidneys.

Dr. F. E. Steward, of Wilmington, Del., had found it useful in correcting foul breath.

Dr. Charles D. F. Phillips, of London, read a paper entitled

THE ACTION OF CERTAIN DRUGS ON THE CIRCULATION AND SECRETION OF THE KIDNEY.

This contained a number of very interesting experiments, made with Roy's onkometer, with caffeine, sparteine, strophanthin, digitaline, and ulexin.* He concluded that the flow of urine is not so much dependent on the blood pressure as on the rate of flow of the blood in the renal vessels. With regard to this point, it is necessary to remember that, although such drugs as strophanthin produce a great increase in the *force* of the cardiac beats, yet these are very much slowed, so that it is quite possible that

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*Ulexin is an alkaloid from the gorse *Ulex europæus*.

although the heart's action is stronger, yet the total amount of blood sent through any given organ, such as the kidney, in a given time, may remain the same; whereas such a drug as digitalis, producing as it does a rise of blood-pressure and a contraction of the kidney vessels, may cause an increased quantity of blood to pass through the renal vessels. On this view one could find the explanation of digitalin being a diuretic and strophanthin not being one.

Inasmuch, however, as spartein has not so marked diuretic action, we must also assume that digitalin must have some peripheral action on the secretory apparatus of the kidney.

His results were tabulated briefly as follows, in three divisions:

(A) DRUGS THAT FIRST CONTRACT AND AFTERWARD DILATE THE KIDNEY.

(1) *Caffein*, in small doses, induces in the stage of contraction a fall of blood-pressure; in that of expansion, a slight rise. During the former the flow of urine *may* be arrested; during the latter it is always increased, such increase depending on dilatation of renal vessels.

(The possible *arrest* of secretion during the first stage is special to caffein, and may be induced by large or repeated doses.)

(2) *Ulexin* ($\frac{1}{6}$ gr.) greatly raises blood-pressure during the first stage (that of contraction); in the second, expansion is much greater in degree but shorter in duration than under caffein, and is accompanied by brief but marked increase in urinary flow; the effective dose is limited by its toxic action on respiratory centers. Practically, *excess* of caffein induces only the first stage—*excess* of ulexin only the second.

(B) SUBSTANCES THAT DILATE THE KIDNEY, BUT TO LESS EXTENT AND MORE SLOWLY THAN CAFFEIN AND ULEXIN,

are dextrose, urea, sodium, chloride and acetate, and probably all constituents of the urine.

(C) DRUGS THAT CONTRACT THE KIDNEY WITHOUT SUBSEQUENT EXPANSION.

(1) Digitalin, with *increased* secretion of urine (probably resulting from general heightened blood-pressure).

(2) Spartein, with *diminished* secretion (in health at least).

(3) Strophanthin causes slight temporary contraction, with no marked increase of secretion.

(4) Apocynein, similar temporary contraction, and no definite increase of secretion.

(5) Turpentine; (6) adonidin; and (7) barium chloride give similar results.

In conclusion, it seemed to him that the plethysmographic method of experimentation is a valuable one for determining the exact action of drugs on the circulation, and one that deserves more attention than it has hitherto attracted.

Dr. Murrell referred to the importance of this study of diuretics, since so little is known, comparatively, of their effects. Diaphoretics are well understood, but the action of diuretics remains to be worked out. He could not understand the points of superiority of the instrument used over Marey's tympanum.

Dr. Phillips said that Roy's onkometer was simpler, easier to work, and more accurate in its results. Dr. Woodbury inquired if any estimation had been made of the solid ingredients of the urine excreted during the experiments. He regarded water as merely incidental. The urine of snakes is solid. It is of primary importance, in determining the value of a diuretic agent, that its effect upon the excretion of the urinary salts (urea, urates, creatine, creatinine and allied bodies) shall be ascertained.

Dr. Phillips said that these experiments were yet in their infancy and incomplete, but at a future time the chemical composition of the urine will be communicated.

Dr. Samuel S. Wallian, of New York, read a paper on

THE NEGLECT OF NON-MEDICINAL THERAPEUTICS,

in which he urged the abandonment of drugs, and resort to baths, massage, electricity, and hygiene.

SECTION ON CLIMATOLOGY AND DEMOGRAPHY.

TUESDAY, SEPTEMBER 6TH—SECOND DAY.

The section met at 11 A. M. The following resolutions, submitted by the President of the

Section, were discussed, and, after verbal amendments, unanimously adopted:

Resolved, That in the opinion of the Section on Medical Climatology and Demography of the Ninth International Medical Congress, assembled in the city of Washington, September 5-10, 1887, it is important there should be established in every country a national department, bureau, or commission for the record of vital statistics upon a uniform basis, to include not only accurate returns of births and deaths, but the results of collective investigation by government officials of facts bearing upon the natural history of disease as manifested among men, women, and children separately, especially with regard to climatic and other discoverable causes of the several forms of disease—race, occupation, and residence being included—that necessary preventive measures may be determined and enforced for the preservation of the public health.

Resolved, That the Secretary-General be requested to have the expression of opinion communicated to the several governments.

Dr. Charles Denison, of Denver, Col., read a paper on

THE PREFERABLE CLIMATE FOR PHTHISIS.

The paper was elaborately illustrated by maps, diagrams, and tables. Dr. Denison believes that the climate to be preferred for the great majority of consumptives in the United States varies from between fifteen hundred feet elevation in the North in winter, to ten thousand feet in the Southern portion in summer. Certain contra-indications exist against sending consumptive patients to high altitudes. The most prominent of these are advanced age of the individual; an excitable, nervous temperament; valvular lesions, with rapid action of the heart; marked and extensive emphysema; pneumothorax and hydro-pneumothorax; active pneumonia or hemoptysis; high bodily temperature; extensive involvement of lung-tissue, and similar conditions.

He takes the affirmative side of the following five divisions named, in the order of their relative importance: (1) Dryness as opposed to moisture; (2) coolness or cold preferable to warmth or heat; (3) rarefaction as opposed to sea-level pressure; (4) sunshine as opposed to cloudiness; (5) variability of temperature as opposed to equability.

Dr. John William Moore, of Dublin, Ireland, then read a paper on

THE SEASONAL PREVALENCE OF PNEUMONIA.

The conclusions—pneumonia has claims to consideration as a specific fever on the following grounds:

1. Its not infrequent epidemic prevalence, which is beyond dispute.
2. Its proved infectiveness.
3. Its occasional pythogenic origin in many cases.
4. Its mode of onset or "invasion," which exactly resembles that of the recognized specific fevers.
5. The appearance of constitutional symptoms before the development of local signs or symptoms.
6. The critical termination of the febrile movement in uncomplicated cases.
7. The presence of local epiphenomena in connection with the skin, as herpes, taches bleuâtres, and desquamation.
8. The developement of sequelæ in some cases, such as nephritis, followed by renal dropsy, and other conditions.
9. The discovery of a probable pathogenic bacillus, to which analogy points as pathognomonic.

Dr. Moore concludes his paper in these words: "The day is seemingly not far distant when we shall speak of pneumonic fever in precisely the same way as we use the term enteric fever at present; that is, to signify a zymotic or specific blood disease, manifesting itself after the lapse of a certain time—the period of incubation—by physical phenomena, objective and subjective, connected in this instance with the lungs."

THE RELATIONS OF CERTAIN METEOROLOGICAL CONDITIONS TO ACUTE DISEASES OF THE LUNGS AND AIR PASSAGES.

Dr. Henry B. Baker, of Lansing, Mich., read a paper on the above subject, which was illustrated with diagrams that showed curves for influenza, tonsillitis, croup, bronchitis, and pneumonia, which follow the curve for atmospheric temperature with surprising closeness.

He suggests that the explanation of the causation of these diseases has not been grasped before because one of the principal facts has not been apprehended, namely, the fact that cold air is always dry air; on the contrary, it has been generally stated that when these diseases occur the air is cold and damp. He explains that while the cold air is damp relatively, it is always absolutely dry, and he thinks that its bad effects on the air-passages are mainly through its drying effects, which can best be appreciated by reflecting that each cubic foot of air inhaled at the temperature of zero, Fahrenheit, can contain only one half grain of vapor, while when exhaled it is nearly saturated at a temperature of about 98° F., and therefore contains about eighteen and one half grains of vapor, about eighteen grains of which have been abstracted from the air-passages. Thus, cold air, falling upon susceptible surfaces, tends to produce an abnormal dryness which may be followed by irritation and suppuration. He claims that coryza is sometimes so caused. Under some conditions the nasal surfaces are not susceptible to drying, the fluids being supplied in increased quantity to meet the increased demand made by the inhalation of cold air. In that case an unusual evaporation of the fluid leaves behind an unusual quantity of non-volatile salts of the blood, such as sodium chloride, and an unusual irritation results; he thinks influenza is the name commonly given to this condition.

The effects which the inhalation of cold air have on the bronchial surfaces depend greatly upon how the upper air-passages have responded to the increased demand for fluids; because, if they do not supply the moisture, it must be supplied by the bronchial surfaces; in which case bronchitis results. Finally, if the demands for moisture made by cold air are not met until the air-cells are reached, pneumonia is produced.

He refers to statistics which he has published, showing that even the rise and fall of such contagious diseases as scarlet fever, diphtheria, and smallpox follow the same laws shown to control in the acute diseases of the air-passages, and he offers the explanation that the irritations and exudations in the air passages caused by the inhalation of cold dry air supply a nidus for the *contagia*, and are thus the predisposing causes of those diseases. As to whether or not pneumonia is a contagious disease he offers no evidence except that nearly all of the phenomena seem to be accounted for without the necessity of supposing a special *contagium*. For the abnormal accumulation of the non-volatile salts of the blood, through evaporation of the fluids in the air-cells, so as to cause inflammation and exudation, time is required; therefore, he does not believe that a sudden and short exposure to cold can ordinarily produce pneumonia, except the short exposure follow or precede somewhat prolonged inhalation of cold dry air; although he thinks that lobar pneumonia may have just that causation, the reason for the chill and for the limitation of the area of the exudation being the disturbance of the nervous equilibrium associated with the more or less complete paralysis of the small blood-vessels in that part of the lungs supplied by one particular nerve, some or all the endings or reflexions of which have been suddenly exposed to the enervating influence of warmth following the exposure to cold.

SECTION ON PHYSIOLOGY—MONDAY, SEPTEMBER 5TH—FIRST DAY, AFTERNOON SESSION.

In his inaugural address the President directed special attention to the influence exerted by the cell on the processes of development and decay.

Dr. Daniel G. Clark, of Toronto, Canada, read a paper on

THE BASAL GANGLIA OF THE BRAIN AS CENTERS OF PSYCHIC AND FUNCTIONAL POWER.

The author of the paper maintained that these ganglia are psychical centers: (1) Because of their greater activity physiologically; (2) because they are the focal centers to the hemispheres; (3) they are vital points of greater significance than any other part of the brain; and (4) experiments point to their directing and controlling power.

The paper gave rise to discussion, which was participated in by Drs. Love, Wythe, Stockman, of Edinburgh; Kleinschmidt, of Washington; Hallibert, Professor Madden, and Dr. Boenning, of Philadelphia.

Dr. Richard Caton, of Liverpool, England, then read a paper entitled

RESEARCHES ON ELECTRICAL PHENOMENA OF CEREBRAL GRAY MATTER.

These were the chief results obtained. Owing to the great difficulty of the investigation, more than half of the experiments were valueless.

1. Electrical currents are present in the gray matter of the convolutions.

2. These currents are increased during the arrest of functional activity caused by anesthetics or death. After death the current diminishes and disappears.

3. In regions of the brain related to a special function, negative variation appears to take place during functional activity.

4. The occurrence of negative variation in an area of the brain assumed to be related to a special act at the movement of the performance of the act affords further evidence of localization.

5. These experiments afford some evidence that areas of brain related to movements of special muscles are also related to some form of sensibility in the skin adjacent to those muscles.

Dr. E. O. Shakespeare, of Philadelphia, Pa., read a paper entitled

THE STRENGTH OF THE SUPERIOR RECTI MUSCLES.

He found many cases of asthenopia not relieved by correction of the refraction, and external and internal recti in which there was want of proper action of the superior or inferior recti. In testing we may find that the displacement of the image is greater when a prism is placed over one eye than when over the other. If you use a correcting prism you will find one superior rectus stronger than the other. To correct the muscular error, if there is an error of refraction, he discenters the lenses, and if no refractive error is present, then he puts on prisms.

Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The arrangements are now complete for the opening of the various medical colleges and schools. St. Bartholomew Hospital College will open on the 3d of October, and the annual dinner of old students will take place in the evening, but as usual there will be no introductory address or other ceremonial; St. Thomas' Hospital School on the 1st, with an introductory address by Dr. Robert W. Reid, F. R. C. S., the annual dinner taking place in the evening in the Governor's Hall, at which Sir William McCormack will preside; Guy's Hospital School on the 3d, and in the evening the Physical Society will hold its first meeting, when Mr. F. G. Beddard will read a paper; the London Hospital College on the 1st, and the old students' dinner will be held on the 3d in the new library, in lieu of an address at the college, at which Mr. Jonathan Hutchinson, Emeritus Professor of Surgery, will preside; St. Mary's Hospital School on the 3d, with an introductory address by Mr. George A. Cutchell, followed by the annual dinner in the evening, the dean of the school in the chair; the Westminster Hospital School on the 3d, with an introductory address by Dr. Sturges, after which the prizes of the past year will be distributed by Sir James Crichton Brown, and the annual dinner will be held in the evening at the Holborn Restaurant; the Charing Cross Hospital School on the 3d, without an address or other ceremonial; the Middlesex Hospital School on the 3d, when the Lord Mayor will distribute the prizes of the past year, the new school buildings will be opened and a reception held, followed by the annual dinner at the Holborn Restaurant in the evening; King's College on the 3d, with an introductory address (not yet settled by whom), and University College on the 3d, lecture by Dr. H. Ratcliffe Croker.

An extraordinary surgical operation is reported from Cambridge. It is stated that twelve months ago a young woman was stabbed by her sweetheart in the streets of Huntingdon, for which the man was sentenced to fifteen years' penal servitude. After a painful illness the girl gradually grew better, but always believed a piece of sword-blade had broken off in her body and was still there. Professor Humphrey, of Addenbrook's Hospital, Cambridge, has just succeeded in extracting from the girl's body a piece of steel blade more than six inches long. The most remarkable fact connected with the operation is, that although the wound was in the girl's chest, the blade was extracted, broken end first, from her back, so that it must have turned completely round during the time it had been in her body. Her recovery is now considered to be almost certain.

The following most certain means of destroying the infectious element of contagious diseases has been recently suggested by one of our leading luminaries in sanitary science. The only drawback to its popular use is the powerful and poisonous nature of the disinfectant, viz., corrosive sublimate, which, from its superiority over all other disinfectants, might be termed the king of disinfectants. Its dangerous nature, however, almost prohibits its being used by any but professional hands, or by those who perfectly understand its powerful character. The mode of procedure is very simple. From one and a half to two ounces of corrosive sublimate are put on a plate over a chafing-dish, and then the windows and doors are closed. After the expiration of three or four hours the windows are opened, and the apartments thoroughly aired. The person entering the room should take the precaution to hold a damp sponge or cloth over the mouth and nostrils, in order not to inhale the vapor. The following day the windows are again closed, and some sulphur is burned in order to neutralize any of the mercurial fumes which may still linger about the furniture or other articles. The room is to be again aired and cleaned, and will then be ready for occupation. This treatment also effectually destroys all kinds of insects, and it is stated that a second case of a contagious disease which could be attributed to infection remaining in a room has never been known after using the corrosive-sublimate treatment. After scarlet fever, measles, erysipelas, or pyemia, the results have been most satisfactory.

Dr. Turner has been commissioned by the Local Government Board to investigate some outbreaks of diphtheria, of which the origin was wrapped in obscurity. At present he has come to the conclusion that in numerous cases the prevalence of that disease among human beings has been so significantly preceded by throat affection among domestic animals that there is at least a strong probability that the infection has been communicated by those animals to persons who come in contact with them. Last year, in the neighborhood of Aldershot, there were several instances in which fowls were affected by a disease quite distinct from the ordinary "gapes," and accompanied by the formation of a membrane in the throat. This disease spread rapidly and caused great havoc among both chickens and pheasants. A man bought a chicken from an infected farm at a low price, because it was expected to die, took it to a distant village where there had been no previous diphtheria, and forthwith had an outbreak of diphtheria in his family. At Brent-Pelham, in Hertfordshire, in the investigation of an epidemic of diphtheria, it was found that in a cottage, where the first cases occurred, a kitten had previously suffered from a throat affection, which was attended by swelling of the neck and other diphtheritic symptoms. Other cats in the village were reported to have suffered in a like manner. At Blackwater again a cat was noticed to be ill in the same fashion, and apparently communicated her disease to the children of the family, who were attacked by diphtheria. On the other hand, it was thought that the cats in a row of houses where diphtheria prevailed had caught the affection from the children, not the children from the cats. Moreover, Dr. Turner finds ground for believing that the sort of sore throat known as "strangles" in horses has some affinity with human diphtheria. In one village the first case of diphtheria at a farm-house occurred shortly after a horse on the farm had died of "strangles," the horse-keeper being himself attacked; and, conversely, in the neighboring village where a man just convalescent from diphtheria was employed to groom a mare, she was very soon affected with "strangles." Dr. Turner mentions other instances of the same kind, and remarks, that if the nature of the employment of persons who have died of diphtheria be noted, a surprisingly large proportion of such persons, or of their parents, will be found to have followed occupations more or less connected with horses or other domestic animals. Dr. Ogle reports a case in which diphtheria occurred in a shepherd's family shortly after a throat disease had prevailed among the sheep.

LONDON, August, 1887.

Abstracts and Selections.

WITZEL ON INJURIES OF TENDONS AND THEIR TREATMENT.—A very complete study of the injuries of tendons and their proper treatment has been made by Dr. Oscar Witzel, and we give a brief *résumé* of his views. The greater part of injuries of tendons are complicated with wounds, and yet isolated cases of subcutaneous rupture of tendons do occur. Witzel thinks that there is always some pathological change in the tendon in these cases A previous tendo-synovitis may cause the infiltration of the tendon with serum, the tendon may be partly worn and raveled in hydrops of the sheath, or reduced to a third or a quarter of its diameter in hydrops with lipotamous degeneration of the sheath.

The actual rupture may be caused by vigorous muscular action, but it is probably more frequently due to overextension of the tendon and its usually weakened muscle. Hence in every case of sprain of a joint the examination should be sufficiently thorough to exclude this injury. The situation of the rupture can be detected by the finger, feeling the step-like gap between the ends of the tendon, as after tenotomy, the interval being filled with a soft clot of blood, which may give a crackling sensation to the finger. The chief symptom will be loss of function in the muscle the tendon of which is ruptured. If the ends can be brought into close contact, and care is taken during the treatment that they remain in apposition, union may be confidently expected. If the ends can not be approximated by manipulation of the limb, incision and suture are indicated, as in fracture of the patella and olecranon. But it will be best to delay the operation until the first inflammatory reaction has passed, so as to avoid the presence of blood, so easily made septic in the sheath of the tendon.

One feature common to nearly all wounds with injury of tendons, is that they are directed more or less transverse to the axis of the limb and to the course of the tendon. The character of the instrument is of great importance, for clean-cut wounds heal much more rapidly than wounds with contused and lacerated edges, but the most important element is presence or absence of septic matter.

The prognosis is very uncertain and chiefly depends upon the condition of the wound with regard to sepsis at the time when it first comes under treatment.

Secondary necrosis of parts of the tendon may follow if suppuration takes place, but this is much less likely to occur, or at least to be extensive, if the suppuration is not septic. As it is impossible to determine how septic the wound may be, if there is any doubt upon this point, the wound should be left open, since the amount of injury caused by the suppuration will be diminished by allowing free escape to the discharge. This must also be done if the tendon has suffered much contusion. Suture of the tendon can not be attempted in these cases, but an operation for suture can be done later, when the wound is granulating well, and all septic infection has disappeared (intermediate suture), or when the wound has entirely cicatrized (secondary suture).

That extensive exposure and isolation of a tendon in a wound will be followed by its mortification, is an old teaching. But if the wound is aseptic, gangrene will not occur so long as the nourishing covering of the tendon remains, and the blood supply is maintained. If the blood-supply is cut off, the isolated part dries up, turns gray, and is thrown off by granulation of the edges.

Simple division of a tendon by incision is a small matter, for experience teaches that the divided ends rapidly unite if kept in contact, uniting by first intention like other tissues. The material for this union appears to be supplied rather by the sheath than by the tissue of the tendon, and the two ends are joined by a mass of callus (like a fractured bone) which is at first adherent to the neighboring parts. These adhesions are separated by motion, and the exuberant callus wears off by friction, so that the point of union can not be detected even by a longitudinal section of the tendon.

The great difficulty in injuries of tendons lies in the retraction of the divided ends—a separation which is greatest when the tendon lies in a long synovial canal. The two ends become adherent in this position of separation, and the muscle suffers atrophy from disuse; even if the ends are united by the interposition of new tissue, the muscle loses in power.

Whenever there is a possibility that tendons have been injured in a wound, especially upon the anterior surface of the hand and forearm, the action of every muscle should be examined. All the movements of the hand should be made, the fingers spread apart (loss of the power to separate the fingers indicating that the ulnar nerve has been injured), and the fingers flexed while separated, and due allowance made for the action of auxiliary muscles. The projection of the tendons under the skin must be looked for. Another reason for thorough examination of the action of the muscles in fresh injuries is the great danger of overlooking some tendon when more than one have been injured.

In the examination of such wounds as full antiseptic precautions must be employed as in the examination of a compound fracture, anesthesia and Esmarch's method are very useful, the former assisting as much by relaxation of the muscles as by prevention of pain.

By moving the limb in a direction opposite to that in which the affected muscle moves it, the retracted ends of the tendon can often be made to appear in the wound. Should this fail to bring the central end into sight, the muscle must be strongly compressed, and stroked downward from its origin toward the periphery by the hands of a strong assistant or by the rubber bandage wound from above downward. Some attempt to lay hold of the end of the tendon with forceps inserted into the sheath, but there is great danger of septic infection in this maneuver, as well as danger of tearing or contusing the tendon. It is far better to enlarge the wound at once. But by the old method of enlarging the wound, cutting directly down upon the tendon, it was often difficult to unite the skin over the tensely stretched tendon after suture, and the tendon was liable to become firmly attached to the cicatrix. Witzel prefers to make an incision in the skin, beginning at the wound, to one side of tendon and parallel to it, and to dissect up a flap until the tendon is exposed. The sheath of the tendon is then opened, if possible, on the side. This method also affords an opportunity to thoroughly drain and disinfect the sheath, which has almost certainly been rendered septic by the retracting tendon.

The needles of Hagedorn are best for suturing tendons, because they separate the fibers without tearing them. But the same object can be attained with the fine needles curved on the flat employed in operating for hare-lip, if they are passed with their greatest diameter parallel with the fibers. The best material for sutures is the bichloride catgut of Hagedorn.

Any suture which is at all constricting will prevent union by cutting off the blood-supply, hence Nicoladoni's suggestion, to make the sutures of the most delicate material, and to relieve them of tension by passing an acupuncture needle or a catgut suture through the tendon and the tissues overlying it at a distance of one inch above the point of division, is excellent. Witzel has found it simpler to pass a medium-sized catgut suture through each end of the tendon, one centimeter from the point of division, after they have been exposed in the wound, and to tie the end of these sutures together after the true sutures have been inserted, so as to remove all tension from the latter. If the distal end is too short to allow of this suture, it is to be passed through the soft parts and skin, and the other suture secured to it.

The greater security afforded by these relaxing sutures enables the surgeon to make passive movements of the limb, and thus to place the sutured point so that it does not correspond with the wound; or, when more than one tendon has been injured, to arrange the points of sutures of different tendons so that they do not lie in one place. It is well to place some strands for drainage under the flap, down to the point of suture, but not in contact with it.

If the wound is septic, the tendons can be sutured and the rest of the wound left open. But if there is doubt as to whether the sepsis can be entirely corrected, it will be better not to attempt even this. In such a case the method of Nicoladoni would be useful to prevent retraction of the ends—at any rate, the limb must be put at rest in such a position that there will be as little retraction as possible. Whether intermediate suture, suture in the granulating wound when all signs of sepsis has disappeared, is advisable, remains for experience to prove—thus far the evidence is in its favor.

Secondary suture of tendons, the wound having completely cicatrized, may be begun with a rectangular or convex flap, the long side lying to one side of the tendon and parallel with it. The tendon must be very carefully dissected from the cicatrix with blunt instruments, so as to avoid subsequent sloughing. If there is cicatrical tissue filling the gap between the ends, this must be dissected out, and left attached to the tendon. The ends are then freshed and united with sutures.

But if the ends can not be made to meet, some plastic operation becomes necessary. It is best to cut the flap to fill the interval from the peripheral end; but the central end may be used, and in one case an entirely isolated piece of tendon has been successfully grafted in. The experiments and cases of Glück show that even catgut, or silk, or strips of india-rubber may be employed as grafts.

If even this is impossible, there remain, as last resorts, the implantation of the peripheral stump in the tendon of a neighboring muscle which has a similar action; its attachment to a less important muscle, the tendon of the latter being cut away; or the splitting of an uninjured tendon and muscle so as to form two, and using one to replace the muscle which has been lost.

The dressing must be left untouched as long as possible, and as soon as the drainage openings are all closed the fixation apparatus should be removed, so that voluntary motion may begin. Two weeks after the operation massage is to be begun, and one week later passive motion. If the course of the wound is not fully aseptic, and it becomes necessary to remove the dressing and reopen the wound, the sutures in the tendons should be left in place, unless it is absolutely necessary to cut them, as union has been known to occur even when slight suppuration was present. But in such cases motion can only be begun when the wound is closed or reduced to a superficial ulcer. If a plastic operation has been done, motion must not be undertaken until four weeks have elapsed.—*B. Farquhar Curtis, Annals of Surgery.*

INTESTINAL OBSTRUCTION ILLUSTRATING SOME POSSIBLE ERRORS OF DIAGNOSIS.—CASE 1. *Chronic intestinal obstruction simulating tabes mesenterica.* W. M. T., an imbecile boy aged sixteen, with family history of phthisis. Toward the end of August, 1882, it was noticed that he had fallen off a good deal in flesh, and had occasional attacks of abdominal pain and diarrhea. On examination of the abdomen there was found to be general enlargement, with prominence of the superficial veins, and apparently a little ascites. On September 21st a tumor was felt in the right iliac region, which subsequently extended into the hypogastric region; it was hard, lobulated, and easily mapped out with the hand, being evidently distinct from the liver and kidney. The symptoms were gradual emaciation, abdominal pain, occasional vomiting (which, however, was never copious or uncontrollable), and a tendency to diarrhea, the motions being of a dark muddy color. The morning temperature was generally about normal; in the evening it was usually a little over 100°, but sometimes as high as 102°. He died on October 31st without any fresh symptoms. The diagnosis made was tubercular disease of the mesenteric glands. The *post mortem* examination showed that the cause of death was intestinal obstruction. The tumor felt during life consisted of coils of intestine closely matted together by peritoneal adhesions and distended by a dense fecal mass consisting almost entirely of potato parings.

CASE 2. *Acute intestinal obstruction simulating choleraic diarrhea.* S. B., an imbecile boy, aged sixteen, with feeble circulation and subject to occasional attacks of diarrhea. On July 30, 1883, some friends came to see him and gave him a good many sweets. The same night he had diarrhea badly; the next day he looked very pale and ill; about noon the diarrhea recurred, he became very blue, and his pulse was almost imperceptible. He was put to bed and stimulants administered; he looked better, but diarrhea continued. August 1st: He was restless during the night, and the diarrhea still continues; the stools are liquid, of a *dark-greenish mud color;* he complains of no pain, but is thirsty; the hands and feet are cold, and the pulse imperceptible; temperature in the axilla 102°, no abdominal distension; tongue slightly coated; he has taken plenty of milk and beef-tea, *without sickness.* Ordered a mixture containing tincture of opium, compound spirit of ammonia, spirit of chloroform, and tincture of catechu, every three hours, and two teaspoonfuls of brandy every two hours, with warmth to the surface by hot flannels and a hot-water bottle. He, however, did not rally, and died at 2:45 next morning. The *post-mortem* examination showed that death was due to intestinal obstruction, the seat of obstruction being the sigmoid flexure of the colon, which was tightly packed with hard scybala.

CASE 3. *Acute intestinal obstruction simulating choleraic diarrhea.* Arthur T., an idiot boy aged fifteen. August 17, 1886: The last fortnight he has been suffering from disordered bowels, apparently diarrhea, the motions being liquid and of a dark-green color (according to the nurse). During this time he has been sick twice, and has not taken his food as well as usual. This morning the symptoms suddenly became more acute, he vomited repeatedly during the day, and there was an almost constant liquid flux from the bowels. Toward evening he became very much exhausted, the pulse being quick and feeble, and the hands and feet cold. Stimulants, astringents, and sedatives were administered freely without effect. 18th: This morning, at 8 o'clock, he looks very bad; he is hollow-eyed, the surface is cold and clammy, and there is no pulse perceptible. He has been sick only once during the night, but there is almost constant retching, and the diarrhea has continued almost incessantly, the stools being liquid and of a peculiar *muddy* color. The character of the stools called to mind the previous case; the rectum was therefore examined with the finger, and just at its tip a hardened mass of feces was felt in the upper part of the rectum. An attempt was made to break it down, and then a copious enema was administered. Nothing came away immediately, but about two hours afterward a piece of slate-pencil $2\frac{1}{8}$ inches long was extracted from the rectum with the finger; subsequently, after repeated enemata, a quantity of small pieces of slate-pencil about an inch long, a few bits of stick, some pieces of rag, and fragments of wool, came away. All the bad symptoms passed off, and the boy rapidly recovered.—*Dr. Harold G. Taylor, London Lancet.*

Removal of Advanced Cancerous Disease of the Rectum by a New Operation.—The patient being anesthetized is to be placed in the lithotomy position in a good light, and with his buttocks well raised, and projecting over the edge of a hard pillow placed under the loins. A macintosh should protect the pillow, as well as the end of the table, and be so arranged as to conduct any blood that may be lost clear of the operator's knees. A very large sponge placed beneath the back, and changed from time to time, is very useful. The scrotum is to be raised, and held out of the way by an assistant, who should also be prepared to pass a catheter into the bladder should the operator require it during the operation. Then the perineum should be shaved, and thoroughly cleansed with a solution of perchloride of mercury (1 to 1,000). The rectum, that should have been well emptied before operation, should now be plugged with cotton-wool to such an extent as to entirely prevent any outpouring of feces. When all these precautions have been taken, the knife is placed on the tip of the coccyx, and an incision, penetrating well into the subcutaneous tissues is made from that point forward, till it arrives at a convenient distance from the anus, whence the knife should sweep completely round the anus till it meets the wound already made. A number of bleeding points now require to be compressed, and the larger ones tied—only one or two on each side will require ligature. The incision is now to be extended along the middle line of the sacrum and coccyx till the level of the healthy bowel is reached, or until the level of exit of the fourth sacral nerve is closely approached. This extension of the incision should go well down to the bone. The sacrum and coccyx are now to be cleared, both posteriorly and laterally, from all their connections, the point of the knife to be applied very closely to the bone during this part of the operation. No vessels of importance are liable to be wounded; the only structure in danger is the rectum itself, as it lies in front of the bones. With the finger the rectum can now be cleared from the bones and held out of the way while a pair of bone forceps, or a saw, detaches the exposed bones from the rest of the spinal column. The healthy rectum should now come into view, or be capable of being pulled down posteriorly into view, and should be stitched in position by a suture passing through the serous coats and the skin on each side. Healthy rectum should, if possible, protrude beyond the skin to allow of the free evacuation of the feces well beyond the wound, the mucous membrane of the rectum being everted by the sutures that join the bowel to the skin.

After fixing the healthy rectum by a single stitch in the manner described, the anus should next be freed from its surroundings. The attachments of the levator and other muscles are to be cut through close to the rectum, and all bleeding points are to be compressed as soon as they appear. The larger ones should be twisted or ligatured, the smaller ones cease to trouble after a few minutes' compression. Laterally and posteriorly it is necessary to keep close to the rectum (but, of course, outside the diseased structures). This, and the prompt stoppage of hemorrhage, are the only code of instructions necessary in this part of the operation. Anteriorly the membranous urethra comes into view, and is easily cleared. As we reach the anterior boundary of the prostate, a firm resistance is met with, and an appearance of no thoroughfare that might be mistaken for the peritoneum. A bougie or catheter passed *per urethram* will show the relations of the urethra to the rectum. The membrane just described should be divided horizontally in the middle line for half an inch, and just beyond the wall of the bowel, as shown by the catheter. The prostate now appears, and the finger inserted into the opening thus made can strip the rectum from the prostate and the base of the bladder all along the middle line. Lateral attachments still remain to be cut through cautiously with scissors, until the vesiculæ seminales, the vas deferens, and the ureters are seen. We now come upon the peritoneum, and if necessary it can, if great caution be used, be stripped with safety off the rectum for some distance, until the upper limits of the diseased mass have been reached.

I have removed six inches in the dead subject without injuring the peritoneum, except that it was puckered considerably into a pouch behind the bladder, after the rectum was pulled down. The extensive wound is to be kept scrupulously clean by frequent ablutions of perchloride of mercury. Hitherto it has not been contaminated by feces, nor should it be so now. The rectum is to be held in position posteriorly, and the anterior part of the wound closed. To allow the sides of the wound to dip into the excavated perineum, deep sutures of strong silkworm gut should be passed through the margins of the wound from side to side at intervals of a quarter of an inch up to the margin of the retracted rectum, the last one passing through the serous coat of the healthy bowel. Then, all bleeding points being stopped, the limbs of the patient are to be extended completely, and his body turned well on either side. The sides of the wound now fall in, and fill up the hollow, leaving a fold between, like the nates. This hollow is packed full of iodoform gauze, through which three small drainage-tubes discharge, after the silkworm sutures already in position have been firmly tied.

The end of the rectum is now stitched laterally by three silkworm sutures, and the diseased part cut off. Then the whole thickness of the coat of the rectum is sutured firmly to the skin around by numerous fine silkworm sutures, care having been taken to allow no feces into the wound during the stretching, and to stitch it so closely as to seal the wound completely for several days, at least against any entrance of feces: iodoform is dusted over the gauze, and some cotton-wool placed over that, and the operation is complete.

The patient should now be placed in bed, with his legs extended, and either lying upon his side or on his back, and with some clean absorbent cotton-wool beneath or behind him. No bandaging is to be applied, except some strapping to retain the cotton-wool over the anterior part of the wound; the feces and discharges are allowed to pass away from and around the rectum, and are to be removed according to necessity. The cotton-wool over the gauze is to be changed about twice or three times daily to protect the gauze beneath, and the drainage-tubes from becoming dirty. In three or four days the deep wound will have healed so far that the deep stitches may be removed. Fresh gauze and strapping may now be applied as often as necessary to the anterior part of the wound until it is quite healed. The drainage-tubes to be removed according to the ordinary indications.—*Dr. W. Alexander, London Medical Press.*

The Treatment of Habitual Constipation and of Biliousness by Podophyllin Resin Alone or in Combination with Belladonna and Strychnia.—Every practical physician is familiar with the frequent occurrence of habitual constipation in patients of the better-off classes, particularly females, and there are few ordinary therapeutical problems more difficult to cope with. This habitual constipation arises from three different factors prevailing in different degrees in different cases, viz., torpidity of liver, deficient peristaltic action of the intestines, and want of attention to the regularity of bowel action on the part of the patient, and this deficient action is too often combated by the habitual use of saline cathartics of strengths varying from potent doses of magnesium sulphate to aperient waters of the Æsculap or Hunydi Janos type, which, although giving temporary relief, end by making matters worse. This constipation is occasionally varied by so-called "bilious attacks," with their accompaniments of headache, furred tongue, odor from the breath, and aversion to food; and recourse is generally had to mercury, either in the form of blue pill or of calomel, and this treatment, although giving relief, is at best questionable, for it must always be remembered that mercury is a distinct blood impairer, and that troublesome salivation occasionally arises from mercurials given for aperient purposes only. Podophyllin, the resin obtained by acting with alcohol upon the rhizome of podophyllinum peltatum, has long been known as "vegetable calomel," and if judiciously administered will accomplish with ease and safety every thing that calomel can effect, either as a liver stimulant, or as a cholagogue cathartic. Moreover, it has none of the blood-impairing qualities of calomel, and it never salivates. The great impediment to its use hitherto has been its insolubility in water or in aqueous fluids, and hence we have, even in the present edition of the Pharmacopeia, only one preparation, viz., the tincture of podophyllin containing one grain of the resin to each dram of proof spirit. This helps us but little, for if the tincture be added to water the resin at once precipitates; it is always necessary to keep it in suspension by emulsifying it with gum acacia. If podophyllin be made into a draught in this manner some of the resin will be certain to remain in the bottle, and this is an important consideration with a dose ranging from a quarter of a grain to one grain. The only feasible alternative is to place the desired quantity of podophyllin in a pill; but this is open to the objection that pills frequently pass through the intestinal canal very slightly changed, and hence it is that the difficulty and uncertainty attending the use of podophyllin have greatly reduced its use. A form of podophyllin capable of being administered in aqueous vehicles has long been a pharmaceutical *desideratum* and this want has been fully met by Hockin's liquor podophyllin, each dram of which contains one quarter of a grain of the resin. One or two drams of this added to an ounce or two of water will produce a perfectly clear mixture, similar in color to pale sherry, but without the least precipitation of the resin, and we are thus enabled to introduce into the system the exact quantity of podophyllin desired. Comparing the therapeutical action of this drug with those of calomel and of mercuric chloride, it may be observed that minute doses of the higher chloride or sublimate stimulate the liver and increase the flow of bile; and if very small doses of calomel do the same, it is considered that this is owing to the conversion in the system of the mercurous into the mercuric chloride. Larger doses of the calomel diminish the secretion of bile but cause a great effusion of secretion from the upper portion of the small intestine; and this is the explanation of the great relief afforded by purgative doses of calomel in the so-called bilious attacks, which are really cases of cessation of secretion in the upper portion of the small intestine, a want which leads to the locking up in the blood of numerous excretions, the retention of which causes the distressing symptoms accompanying a bilious attack. It has been objected to this view that great quantities of bile are detected in cholagogue evacuations, but this is easily explained. In ordinary digestion much of the bile mixed with the intestinal contents is reabsorbed by the small intestine, and returns to the liver by the vena porta, to be again excreted by the liver; and thus it is that the same bile is used over and over again, constituting what is known as the enteric biliary circulation. When a cholagogue purgative operates the bile in the intestines is washed out too rapidly to allow of this reabsorption, and this is the reason of the copious bilious evacuations. A cholagogue cathartic may be either three or four grains of calomel or one grain of podophyllin; but with the former the secretion of bile is actually diminished, while with the latter it is increased, and both remedies cause a great secretion outflow from the upper portion of the small intestine. A very effective cholagogue draught can be made by combining half an ounce of the Hockin podophyllin liquor with ten minims of tincture of capsicum and enough compound decoction of aloes to make up two ounces. This will give unfailing relief in bilious attacks, but in severe ones it may have to be repeated after an interval of three or four hours.

A frequent cause of constipation is the simple torpidity of the liver, so common among persons of sedentary habits and occupations, and taking little or no exercise. In such cases immediate relief can be obtained by taking three times a day and shortly before meals a dram of Hockin's liquor podophyllin combined with a bitter tonic, such as quassia, calumba, or gentian. The constipation disappears as if by magic, abdominal fullness is diminished, and cheerfulness of spirits is obtained. Natural evacuations occur once or twice a day; and if moderate exercise be superadded the cure becomes permanent.

So much for torpidity of the liver; but something must be done to encourage the peristaltic action by which the intestines propel their contents from the stomach toward the anus; and for this purpose small doses of extract of belladonna are most efficacious. In addition to stimulating and strengthening peristaltic action, these small doses of belladonna cause a determination of blood to the gastric and intestinal mucous surfaces, highly favorable to the secretion of the gastric and other digestive juices. Hardly less active in stimulating peristaltic movements are minute doses of strychnine, which, besides that useful office, act as an excellent stomachic bitter tonic. There is no better way of combining these three remedies than Hockin's liquor podophyllin, belladonna, and strychnine, each dram of which contains one quarter of a grain of the first, one eighth of the second, and one thirtieth of the third. One dram of this liquor taken three times a day in combination with a bitter tonic will prove an effectual remedy to the habitual constipation arising from hepatic and intestinal torpidity.

Lastly a word must be said as to the influence of habit in promoting regular intestinal action; and there is no doubt that many of our physiological functions can be thus influenced. Persons engaged in ordinary diurnal occupations become drowsy and go to sleep at night, and if kept up till morning light find a difficulty in going to sleep except under great fatigue; whereas those engaged all night in producing the morning papers are bright and wakeful at the ordinary bed hour, but go to sleep with ease in the morning when the rest of the world is getting up. So it is with the action of the bowels; and there is no doubt that a steadily continued daily effort to evacuate them every morning after breakfast, will in the end bring on complete regularity of this great physiological function. Persons in charge of youth should inculcate this habit; and by so doing they will greatly contribute to the future health and well being of those placed under their guardianship. It is too often the practice, from a feeling of mistaken delicacy, to ignore these bodily necessities, particularly in female schools; but it is at last fortunately dawning upon parents and instructors that physical training is of co-ordinate importance with mental education, and much injury and suffering will thereby be prevented to the growing generation.—*Dr. F. J. B. Quinlan; Ibid.*

The Treatment of Primary Syphilis.—At a recent meeting of the Verein der Aerzte in Steirmark (Society of Physicians of Styria), Professor E. Lipp made an important communication on this subject. He had tried to influence syphilis during the short period in which it had not yet become a constitutional affection in such a way that the virus was prevented from infecting the whole organism, or that, at least, the course of the disease was a more favorable one, and of shorter duration. The excision of the primary sclerosis, as recommended by Auspitz, Neusser, and others, belonged to the experiments which tried to make syphilis abortive, but this treatment was not successful in all cases, owing to infection of the lymph-vessels of the adjacent parts. He, himself, had made several such experiments without having attained the effect which he desired, viz., to prevent universal syphilis from establishing itself in the organism. The defenders of excision were gradually yielding, though they could now and then boast a success with their treatment. The value of the simultaneous extirpation of the lymph glands was very problematic, and might under certain conditions even prove fatal. Professor Lipp had in his own experiments paid the greatest attention to the local and regionary treatment of the syphilitic affection without, however, neglecting the general treatment. He almost exclusively availed himself of the preparations of mercury which were the most efficient antidotes against syphilis. For the local treatment he particularly recommended subcutaneous injections near the affected lymph-vessels and lymph-glands, as by this procedure, the remedy came into intimate contact with the virus, and the syphilitic affection in the enlarged and indurated lymph-glands thus quickly and surely underwent a regressive process. This fact was of great importance, though, on the other hand, the spreading of the virus by the blood-vessels of the primary focus was not to be underrated. A somewhat energetic local treatment derived the importance of a constitutional one, as the medicament being subcutaneously applied underwent resorption into the circulatory system. It was surprising that the influence on the whole organism of such a regionary treatment could be overlooked by the profession. Out of ten females who were in this way treated by Professor Lipp, four did not show any symptoms of general syphilis after the lapse of two, one and a half, and one year from infection; five patients presented only slight symptoms of general syphilis, and only in one of these he observed all symptoms of a general affection, this patient, however, could not support the mercury preparations well, and was, for this reason, not energetically treated. In one of the four quite successful cases, the primary sclerosis had been extirpated. The speaker remarked, among other things, that unsuccessful experiments should not deter from undertaking new and modified ones, unless one wished to make it an axiom that syphilis must take its regular course from the local foci to the infection of the whole organism.—*London Medical Press.*

Albuminuria in Health.—At a meeting of the Royal Society of Edinburgh, Professor Grainger Stewart communicated an important paper on the subject of albuminuria, having reference more especially to the occurrence of albumen in the urines of persons supposed to be healthy. The observations were extended, and the results educed therefrom will doubtless form the bases for future investigations on this absorbing subject. The tests made use of were (1) cold nitric acid, and (2) picric acid, with the usual precautions. Professor Stewart examined the urine of 407 persons, and discovered albumen in 129, that is, in 31 per cent. Care was taken to avoid such fallacies as might arise from the presence of gonorrhea, spermatorrhea, and such like. Of 205 soldiers, 77, that is, 37.56 per cent had albumen. Of 74 civilians, 10.8 per cent had albumen. Of 40 pauper children in one of the city poor-houses, 17.5 per cent had albumen, and of 40 adult paupers of or about sixty years of age, 67.5 had albumen. Further investigations were instituted with a view of ascertaining the effect of diet. Thus it was found that of soldiers, while 15.6 per cent showed albumen before breakfast, the percentage was raised to 40.6 per cent after breakfast. Of old men, 37.5 per cent showed albumen before breakfast, while the percentage was raised to 67.5 after. Of children, 12.5 per cent had albumen before breakfast, while the percentage was raised to 17.5 after. In another group of children, 14.6 per cent had albumen before, while the percentage was raised to 20.8 after breakfast Professor Stewart also drew attention to the effect of exercise and exertion. Thus, of a party of soldiers before taking exercise, 29 per cent had albuminuria, and on their returning from an eight miles' march, the percentage was lowered to 19. Again, of a party of soldiers, 15.6 per cent had albuminuria before breakfast, 40.6 per cent after breakfast, and 28.1 per cent after a march of eight miles. When more severe exertion was undertaken, the results were different. Thus, before commencing coaling duty (that is, the carrying of and distributing coals from the basement to the upper parts of Edinburgh Castle), soon after breakfast, 44 per cent showed albuminuria, and after they had finished the work the percentage was found to be raised to 64 per cent. Of band-boys, playing wind instruments, he found the percentage having albumen to be 20.8, while in other boys in the same institution not so employed the percentage was 8.3, but after one hour's playing the band-boys showed a dimished percentage of 12.5. Of 21 boys in the orphan hospital, 19 per cent showed albumen before taking a cold bath, and after the bath the percentage was increased to 23.8. Professor Grainger Stewart thinks the following conclusions may be fairly drawn from his own and similar investigations: That there is no sufficient proof that albumen is normally discharged from the human kidneys. That albumen is much more common among presumably healthy people than was formerly supposed, tests having demonstrated its presence in nearly one third of the population. That the frequeucy of albuminuria increases as life advances. That it is more common among those whose occupations involve arduous bodily exertion than among those who lead easy lives. That albumen frequently follows the taking of food, especially of breakfast, which more than any other meal increases the amount of albuminuria. That moderate muscular effort rather diminishes than increases albuminuria. That it is often induced by violent and prolonged exertion. That cold bathing produces or increases it in some individuals. That the existence of albuminuria is not of itself a sufficient cause for the rejection of a proposal for life insurance, a conclusion which is of vital importance to insurers, and to companies which have hitherto been in the habit of declining to insure lives on this ground.—*Ibid.*

THE LOCAL DISTRIBUTION OF PHTHISICAL LESIONS.—In a memoir upon the pathology of pulmonary diseases (*Zeitschrift f. Klin. Med.*, abstracted by Sahli in *Fortschritte der Medicin*, No. 11, 1887), Dr. A. Hanau suggests that the reason for the preference of the apex of the lung for the initial lesion of phthisis is to be found in the comparatively weaker expiratory power of this part of the organ. In support of this he cites the frequency with which anthracotic and chalicotic processes are to be met with at the apex, or a short distance below, corresponding to the sites of tubercular foci. Being unsupported, the apex of the lung can be fully expanded by inspiration, but it is less under the influence of expiratory forces than the lower parts of the lung. As a consequence, in forced breathing the air is very likely to stagnate in the apex; and, as Mendelsohn showed with respect to emphysema, there may even be a reflux of air from the normally acting lower parts of the lung into the upper. The comparative immunity from tubercular phthisis enjoyed by the subjects of spinal curvature, by those whose lungs have become cirrhotic, as coal miners, or the emphysematous, may in each case be attributed to defective power of inspiration possessed by the apex or the whole lung in such conditions. The selection of the middle lobe and lower part of the upper lobe for the occurrence of secondary foci due to the aspiration of the contents of cavities which have escaped into the bronchi is also explained. Usually the areas of broncho pneumonia arising from aspiration of noxious matter are to be found in the lower and posterior parts of the lung. This is due to the dorsal decubitus of most of the patients in whom this complication supervenes. But it is otherwise in phthisis when the subject is not confined to bed, for the regions next to be involved to the apex, and infected secondarily from it by means of aspiration, are the middle lobe and contiguous part of the upper lobe. These regions are the most liable to be fully distended in coughing, and the products of the apical vomicæ will be more readily pressed in their direction by the backward current of air. Hanau also ascribes the frequently rapid extension of phthisis in women after childbirth to the aspiration of the contents of cavities into previously healthy parts of the lungs following on the extraordinary respiratory efforts made during parturition. Aspiration as a factor in the dissemination of tubercular lesions is not perhaps as fully recognized as it should be, but it certainly serves to explain the matter in a plausible way, and is in absolute harmony with the doctrine of the local infectivity of tubercular products, which is so admirably illustrated in the distribution of the lesions of uro-genital tuberculosis.—*London Lancet.*

FRUIT AS A FOOD.—No great time has elapsed since we had occasion to make a few remarks on the value of fruit as a form of light diet, and to refer to a few simple rules which those who partake of it would do well to observe. Taken in the morning, fruit is as helpful to digestion as it is refreshing. The newly awakened function finds in it an object of such light labor as will exercise without seriously taxing its energies, and the tissues of the stomach acquire at little cost a gain of nourishment which will sustain those energies in later and more serious operations. It is an excellent plan, with this object in view, to add a little bread to the fruit eaten. While admitting its possession of these valuable qualities, however, and while also agreeing with those who maintain that in summer, when the body is, at all events in many cases, less actively employed than usual, meat may be less, and fruit or vegetables more freely used as a food, we are not prepared to allow that even then an exclusively vegetarian regimen is that most generally advisable. Meat provides us with a means of obtaining albuminoid material, which is indispensable in its most easily assimilable form. It affords us in this material not only an important constituent of tissue growth, but a potent excitant of the whole process of nutrition. It has, therefore, a real, definite, and great value in the ordinary diet of man, and the wholesomeness of fruit combined with farinaceous food as an alternative dietary is not so much an argument in favor of the vegetarian principle, as a proof that seasonable changes in food supply are helpful to the digestive processes and to nutritive changes in the tissues generally.—*Ibid.*

SALOL.—In addition to the many other forms of disease in which salol has now been employed, Dr. Leichenfeld, of Berlin, has used it in cystitis and pyelitis with good effect. He has given daily doses of from two to three grams. In old ulcers of the leg, applied externally, it is said to bring about rapid cleansing of the sores, and in a case of obstinate chancrous ulceration rapid healing took place. It has also been employed in eczema, pruritus, pediculi, scabies, etc. The following are recommended as useful formulæ:

Salol, 0.5 grm.; amyli, 0.1. M. ft. pulv. To be compressed into a tablet.

Salol, 0.5–5.0; amyli, 50. M. ft. pulv. For a dusting powder.

Salol, 0.4–4.0; ol. olivæ, sive adipis, sive lanolin, 40. M. S: For external use.—*London Medical Press.*

PELLETIERINE IN THE TREATMENT OF TENIA. This drug, one of the active principles of pomegranate, is recommended on the authority of an American physician, Dr. Buckingham, as especially effectual in causing the expulsion of tenia from the human intestine. In a paper read on this subject before the Boston Society for Medical Improvement, Dr. Buckingham mentions a case in which a specimen of tenia medio-canellata had resisted the effects of teniacide drugs six times, and the whole worm was finally only expelled after the seventh attempt, on which occasion the remedy in question was administered. This particular parasite is admittedly one of the most difficult of its group to dislodge from the intestines, and it occurs with sufficient frequency to make it desirable that some suitable mode of dealing with it should be known. The dose of pelletierine suggested is three decigrams, four to five grains of the sulphate, which is best given along with tannic acid, the rapidity with which the sulphate is absorbed when taken alone being likely to give rise to injurious consequences. A cathartic medicine should follow in the course of about half an hour. Referring to the manner of prescribing pomegranate ordinarily adopted, Dr. Buckingham points out that experimental and clinical observations agree in showing that the medicine should be taken in one, or at most, two doses, and not in small doses repeated over a considerable time. It is owing to the prevalence of the latter practice that failure of effect is so often noticed, and the recommendation is accordingly worthy of attention.—*Ibid.*

LOCOMOTOR ATAXY IN CHILDREN. — *La France Médicale*, No. 127, reports two cases of locomotor ataxy in children aged twelve and fourteen years respectively. In each case the symptoms were typically well marked. Rutimeyer, in *Centralb. für die Med. Wiss.*, March 12, 1883, draws attention to the hereditary nature of this disease, and tells of two families in which he met with eight and three cases respectively of this disease. In all it commenced in infancy and progressively developed itself.

TOTAL EXTIRPATION OF THE UTERUS PER VAGINAM.—In the Australian Medical Journal for January, 1887, Dr. E. C. Stirling records a case of total extirpation of the uterus by the vagina for carcinoma. Dr. Stirling brought the case before the South Australian Medical Association, which the author claims to have been the first of this character performed in South Australia. The progress was uninterrupted.—*Ibid.*

CYANIDE OF ZINC IN CARDIAC CASES.—Professor Lashkevitch finds that cyanide of zinc, or, as he terms it, "zincum hydrocyanicum sine ferro," has a peculiarly beneficial action on cases of palpitation and pain in the region of the heart, with want of proper rhythm, both when valvular disease is present, and also when the symptoms depend on some neurosis. In the latter case, however, the action is the more marked. In cases where digitalis, convallaria, and other drugs commonly prescribed in cardiac affections, appear to irritate the abdominal viscera, cyanide of zinc has shown itself particularly valuable. The dose is one tenth to one eighth of a grain (the Russian grain = 0.0625 of a gram, or 0.96 of an English grain) This quantity is usually ordered three times a day. A very few doses usually produce a perceptible effect.

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. IV. SATURDAY, SEPT. 17, 1887. No. 6.

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A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

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THE MEETING OF THE NINTH INTERNATIONAL MEDICAL CONGRESS.

When the curtain rose in Albaugh's Opera House and revealed the president of sixty millions of people in a group of men eminent from every civilized country to the eyes of nearly three thousand physicians, gathered from the four corners of the earth, and to galleries filled with earnest visitors, "The Congress is a success" came to the lips of every spectator.

The gifted sons of Italy had left no fairer weather than they found, and the harmony was preserved in the genial hospitality which every where prevailed.

The finishing touches in the work of preparation imparted by the apt, terse, and well-chosen words of the President were received with enthusiastic applause, and the scholarly welcome pronounced by the Secretary of State elicited from the large assemblage unmistakable evidence of a high appreciation of the task that had been performed in the inauguration of so great a work.

In response to the cordial reception extended them the distinguished representatives of Great Britain, France, Germany, Italy, and Russia, returned for the country of each a graceful and pleasing acknowledgment, illustrating in appropriate style the beauties of international courtesies.

If any one had thought lightly of the labors performed by the Committee of Arrangements, and especially by the Secretary-General, he was undeceived by the revelations that came with the announcement of President Davis in the preliminaries of his opening address. Especially were the arduous labors of the Secretary made to appear in their full significance, and it was evident that, however exacting, they had been performed with system and completeness, and, to borrow his own words, "there was no unfinished business on his table."

It was evident, indeed, that no one connected with the organization of the Congress had neglected any part of his duties. In enthusiasm and numbers success had crowned the efforts of preparation. The full measure of its scientific merit can only be made out by a comparison of its published transactions with those of the congresses that preceded it.

The number of visitors from abroad, though larger than generally expected, was not great, perhaps two hundred would cover the count, but this at latest advices there was no accurate means of knowing.

If the social entertainments were comparative failures, no one doubted that at least the management meant well, and the failures were due to circumstances they could not reasonably be expected to control. It was a rare thing to hear any expression of ill-feeling toward parties who have opposed the present management of the Congress; the best of feeling every where prevailed, and the members departed to their widely separated homes well pleased that they had attended the Ninth International Congress, and only regretting that sooner than is likely they could not have an opportunity to show the world what could be done by the profession of America with the advantage of the experiences growing out of the occasion of the present Congress.

BACTERIOLOGY IN ITS THERAPEUTIC RELATIONS.

Quite refreshing was the address of Prof. Mariano Semmola, of Naples, on this theme in the general session of the International Medical Congress at Washington.

There are few men living, if indeed one, who stands higher than he as a bacteriologist. His great learning, trained vision, severely logical mind, and, what is perhaps even yet of greater advantage, his independence of fictitious aids to recognition in the ranks of the great, peculiarly qualify him for ascertaining and speaking the truth. The conclusions of such a man carry with them a weight that entitles them to the highest consideration.

"The error of the day," says the eminent Italian teacher, "is bacteriology considered as the key to all pathology. Doctors have concluded at once that microbes were the cause of disease, whereas in many cases they were but the effects of disease. We ought to reproduce the disease artificially by a microbe before concluding that it is the cause. The experiments made have not given any satisfactory results except in carbuncle and tuberculosis."

This language is in strange contrast with that which makes up so large a part of the current medical literature of both this country and Europe. If one could but believe the tenth part of what he hears and reads, a causative relation has been traced beyond peradventure between bacteria and nearly every form of disease to which man is subject. The German mind is especially biased in this direction. In America we are too apt to accept the latest thing given out; and though comparatively few original discoveries have been made, we have some men who are quite able to confirm whatever has been made out across the water. Unfortunately the most prolific of these discoverers are not unfrequently unable to make out the distinction between even the grossest materials.

It is to be hoped that only those who have their powers of observation thoroughly trained, who are thoroughly honest and truthful, and, above all, have attained the thorough mastery of logic that enables them critically to grasp the subject, will dare to claim the attention of the profession on a theme so difficult and so important.

We shall be disappointed if good does not come from the weighty words of Prof. Semmola, so fitly spoken.

Notes and Queries.

The Congress Proceedings.—We aim to give a general insight into the workings of the Ninth International Medical Congress, having selected for publication the proceedings in the general sessions, and the choice of the work in the sections. The reports are altogether too voluminous for publication in the Practitioner and News, and those of our readers who feel an interest in the entire proceedings must await their appearance in the Transactions of the Congress.

We are indebted for matter to the enterprise and courtesy of Wm. Wood & Co., whose excellent report we regret we can not find space to publish in a more extended form. Dr. Carpenter, who superintended the work for the Record, performed his task so quietly and unostentatiously that one might easily have concluded that the undertaking had been abandoned. But the full, accurate, and well-arranged reports that have reached us not only dispel any such doubts, but characterize Dr. Carpenter as one of the most capable journalists, medical or secular, in the country.

The Conversazione held at the Pension Office in Washington was a unique affair. The members of the Congress had received invitations to attend and become acquainted. Of course it was most agreeable to all that a fair number of the good citizens of Washington should meet them.

And to secure this end the conditions of admission were left quite lax, no one thinking that curiosity would get indiscriminate hold of the populace. But when the spacious halls were thrown open such a tide set in as staggered the most democratic. Of course there were large numbers of good people, "but it did not stop there." Children came, rough workmen with straw hats and smoking bad cigars, and even bevies of negro girls without escorts elbowed their way through the crowd. It is said that full ten thousand people came to gaze on the magnificent decorations of the spacious hall.

At the opening of the Congress invitations were given out to all the members and their families to the buffet banquet of Thursday night. By Wednesday, however, it was ascertained that in some way, variously explained, these tickets had made their way surreptitiously to various hands and to many persons whose presence would be any thing but welcome. They were all canceled and new ones issued, but even with this precaution a great many uninvited guests made their way to the hall and added to the undignified scramble that took place when five thousand people attempted to eat from a table that five hundred might have filled. There was plenty and to spare, however, and many more might have eaten of the fragments that were left.

There is certainly a large element of population gathered about Washington that needs time to be imbued with the manners so marked among its better people. For breaking into places where they are not wanted they are peculiar.

Preservation of Leeches.—J. T. writes as follows in the Chemist and Druggist, August, 6, 1887:

As this subject is being discussed in your valuable journal, I give my method of keeping leeches, which I find answers well, and is less trouble than that of some of your correspondents. I never give leeches any meat or worms; they are kept in an earthenware vase, which has been in use about fifty years, with glass cover and perforated zinc rim; in the bottom are a few pebbles, and part of an earthenware drainer, through the holes of which the leeches crawl when they require a little help to cast their skins. The ordinary tap-water (off the limestone) with which they are supplied is changed three times a week in summer, and once or twice a week in winter. Loss or complaints are very rare, sometimes not once in six months. I always dry leeches before selling, for two reasons: (1) because they bite more readily, and (2) because the glue of the box is often moistened when they are sent a distance. I should think the weeds, earth, etc., which some advocate, would make it rather difficult to find half a dozen or so.

The Affront to Prof. Durante.—One of the most unfortunate occurrences connected with the Congress was the affront given Professor Francesco Durante, of Rome, by the committee. He had been asked by the committee to respond for his country to the welcome of Secretary Bayard, and had accepted, but on asking Secretary-General Hamilton, just before the address, for instructions how to proceed, he was told that Prof. Semmola had been selected. Prof. Durante, regarding this as an insult that a proper regard for his self-respect and the dignity of his country did not permit him to brook, immediately withdrew and resigned from the conference. Subsequently, however, proper apologies were offered and a happy reconciliation took place.

Electrified Ice Cream.—Dr. George S. Hull, of Chambersburg, Pa., has found by actual experiment that electricity is generated in ice cream by the friction of the zinc paddles on the contents of the freezer. He has experimented with various mixtures, and found that the presence of fruit or other acids increased the electric action. The doctor concludes that the cases of ice-cream poisoning come from the zinc and not ptomaines or tyrotoxicon. The doctor is zealously pushing his investigations, and we look for further developments.—*Nat. Druggist.*

M. Pasteur, it is said, expresses profound satisfaction with the report of the British Investigating Committee on his work.

SPECIAL NOTICE.

In prescribing the products of manufacturing pharmacists, we should be guided to a great extent by the business standing of the manufacturers. No other house in the South or West has a better reputation for strict integrity than the firm of R. A. Robinson & Co., Louisville, Ky. We do not hesitate to recommend the preparations advertised by them in this issue.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. IV. [NEW SERIES.] LOUISVILLE, KY., OCTOBER 1, 1887. NO. 7.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

AURAL POLYPI, THEIR STRUCTURE AND TREATMENT.

BY J. R. BRIGGS, M. D.

The study of aural polypi very materially aids us in the investigations into the nature and origin of tumors in general. Owing to the ready means of inspection of the ear, growths here situated usually offer the most favorable opportunities for thorough examination into their nature and stages of growth.

All such growths in the auditory canal may be carefully watched and studied, and their origin and manner of development ascertained.

An exhaustive paper, recently published by Steinbrugge and Moos, is the most valuable contribution to this subject with which I am familiar.

Suppurative inflammation usually supplies the soil from which such growths spring. In their origin aural polypi have in their nature nothing peculiar. They are histologically the same (primarily) as wound granulations, except that occasionally they exhibit an epithelium which adds much to the growth. In the older polypi we find a mixture of granulation tissue and mature connective tissue. Of course the older the polypus the greater the amount of connective tissue. I have never seen an aural polypus that was not clearly fibro-cellular in structure. Even in the oldest there are present large clumps and clusters of round cells, particularly in the periphery. If there is suppuration at the time of the examination we frequently find a foreign body present—perhaps a plug of cerumen pressed deeply down against the drum membrane.

I believe it is an admitted clinical fact that primarily polypi are simply granulation tumors. In the polypi I have examined the microscopical and clinical pictures confirm this view. We know that not infrequently spontaneous involution takes place when the cause which gave rise to the growth is removed. Spontaneous exfoliation from accidental rupture of the pedicle, or the use of the syringe, is a fact of common observation. Besides, many polypi do not seem to have any tendency to increase after attaining certain limited dimensions. The alcohol treatment generally checks the growth, and frequently produces exfoliation. The many accidents to which polypi are liable certainly account for the comparatively limited number of large ones. Even in minute polypi the microscope often reveals partial degeneration of the tissue, and extensive alterations in the blood-vessels with which they are supplied. The main histological characteristic of these polypi is the preponderance of granulation tissue, large round cells with large nuclei and numerous nucleoli lying within a delicate alveolar framework. These cells are packed closely together with but little intermediate tissue.

The older polypi exhibit regular rows of similar nuclei, with spindle-shaped cells and more or less fibro-cellular structure. The transformation of connective tissue begins in the axis of the tumor, in the root first, and extends outward. The outer layers of young polypi show smaller round cells lying together in pairs or triplets, or even in larger numbers, or else large ovoid elongated cells, constricted in the middle, suggesting the peripheral growth of the polypus by segmentation of cells.

Close to these normal cells, however, the tissue is often found in a very degenerated condition. Among the many changes to which polypi are liable we observe a more or less extensive edema and increase of the intermediate substance, a dusky-like opacity of the same tissue and myxomatous degeneration.

The nuclei themselves are frequently swollen to such a degree and are so opaque that the nucleoli can no longer be seen. Besides, we sometimes find hemorrhagic infarction with its sequences, in which the alveolar frame-work is still preserved and filled with red corpuscles or deposits of pigment cells, which in this case are mostly taken up by the round cells. Giant cells are also frequently visible amidst incipient degenerative changes like these. The cause of all these occurrences is to be sought for in the blood-vessels, which in the youngest polypi form a thick net-work of capillaries, precisely as in simple granulations. The vessels are sometimes filled with thrombi, and in some cases the polypi consist almost entirely of vessels and cavernous spaces (angioma).

About one half of all aural polypi possess an epithelium. This of course refers to the cases examined, and at the time of examination, as *previous* changes from accidental causes may have destroyed the epithelium. The polypi which spring from the cuticular layer of the meatus are characterized by the long palisade-shaped processes of the rete Malpighi sinking deeply into the fundamental tissue, as well as by the broad band-shaped fibers of the tunica propria, as Von Tröltch first described them.

The treatment of aural polypi is a matter of no little importance when we properly and seriously consider the fact that such cases are sufficiently common to form a few additions each year to the pages of our *post-mortem* book. The plate of bone which separates the tympanum from the dura mater is never very thick and sometimes extremely thin. The mastoid cells have venous communication with the portion of bone which forms the sulcus in which is the lateral sinus, so that if any surprise is excited by fatal contingencies when there is a perforation of the tympanic membrane, it should be *not* that they occasionally occur, but that they do not occur more frequently. In fatal examples of this kind it is more usual than not to find, after death, that the temporal bone is carious. For this and various other reasons I have learned to guard carefully my prognosis in every case of aural polypus, however small and simple it may appear. Several cases have come under my observation during the last ten years that had been variously treated by different physicians, who seemed to think that the mere removal of the growth constituted the whole of their professional duty. A worse mistake would be impossible. This is obvious from the fact that a pathological condition always precedes the growth of aural polypi. True, such pathological states may be far to seek, nevertheless they exist. As the treatment advances we frequently discover the cause and readily remove it—in many cases it is a foreign substance.

Nothing can so materially add to the rapidity and ease with which such ear affections are cured as the proper and thorough cleansing of the parts. To accomplish this nothing equals the free use of a ten- or fifteen-per-cent solution of peroxide of hydrogen. For several years I have used this remedy in preference to all others in destroying the disagreeable odor attending old discharges from the ears. There is nothing equal to it for this purpose; besides, it very rapidly destroys any granulations that may be present, and if persisted in will destroy large polypi. However, I generally prefer to first pack the auditory canal with tannin and allow it to remain twelve hours, then wipe out the canal with absorbent cotton and drop in the peroxide of hydrogen. The tannin will more readily produce degeneration of the older polypi, and the peroxide cleans out the decomposed tissue and leaves the canal and tympanum perfectly clean—a most valuable consideration in all such cases. With the use of tannin tightly packed in the auditory canal and pressed through the perforation in the drum membrane, and the subsequent free use of the peroxide, I usually succeed in rapidly destroying a polypus attached to any portion of the tympanum. And more than this, I always succeed in destroying the granulations present, and measurably restoring the tympanum to a normal condition, thereby *invariably* improving the hearing. I much prefer this method to that of the boracic-acid packings, as the boracic acid will never do more than check the discharge without removing the cause. This applies of course to deep-seated polypi. Those found external to the drum and along the auditory canal can be snared off and their roots touched with nitrate of silver fused on the end of a probe. In proportion to the depth of a polypus is seriousness of its character. During the last seven years I have treated with the peroxide forty-six cases of aural polypi. Four of these cases were quite serious, as the whole of the mastoid cells were completely filled up with polypi, which seemed to spring up at various places. In only one of these four cases was it found necessary to drill into the mastoid. In each of the other three cases the whole of the mastoid cells were broken down and removed through the auditory meatus. All but one of the forty-six cases recovered, and he died after a drunken debauch while under treatment. He was treated by two physicians during his illness, who informed me that he died of meningitis. The histories and treatment of the rest of the cases were unimportant. I feel certain, after giving the tannin and peroxide a fair trial, that the old acid and caustic remedies will be laid aside. As to the ear syringe, I never use it in the treatment of any ear affection, much less that of polypi. If a physician has the necessary instruments and knows how to use them, he will not syringe the ear *for any consideration.* The sloppy thraldom attending the use of the syringe is most disagreeable, but such is but a small portion of the evil consequences accruing from it.

Dry preparations have almost entirely taken the place of wet ones, and I think very properly so, too, with perhaps one exception, viz., the free use of peroxide of hydrogen in all cases of chronic discharges from the middle ear. After the removal of the granulations I frequently use dry packings of boracic acid with the very best results. In short, I seldom ever use but the three remedies (peroxide of hydrogen, tannic acid, and boracic acid), and do not expect soon to have cause for change. In all such cases we must remember: *Sublata causa, tollitur effectus.*

DALLAS, TEXAS.

TWO CASES OF ABDOMINAL SURGERY.*

BY AP MORGAN VANCE, M. D.

CASE 1: PENETRATING KNIFE WOUND OF TRANSVERSE COLON; RECOVERY. I was called on July 23d to attend Henry Chandler, aged twenty-two, who had received a stab with an ordinary dirk-knife while at play with a companion. I found the patient, a robust mulatto, in profound shock, despite a dose of morphine administered one hour before by Dr. Porter, his family physician. A wound one half inch in length was discovered a little below and about three inches to the left of the umbilicus. From the general condition and the tightness of the abdomen, I concluded there was considerable blood in the cavity, with a probable wound of the intestines.

His surroundings not being good, I advised his removal to the City Hospital at once, which was done two hours after the injury, and one hour after my first seeing him.

With the efficient assistance of the Hospital house staff, I enlarged the wound by an incision downward four and one half inches, the condition of the patient being a little worse than when I first saw him. Pulse 120, feeble; temperature subnormal; anxious countenance and every evidence of shock.

When the cavity was thoroughly opened it was found to be filled with blood, which had a marked fecal odor. No sponging was done in the cavity, but the patient was turned on his left side and the blood allowed to escape; then with an improvised irrigator the parts were more thoroughly cleansed. A great deal of extravasation was found between the folds of the mesentery, and after a long and tedious search a wound of the transverse colon was discovered at the under aspect of the splenic flexure. The intestine was completely collapsed above and below this point, making the wound more difficult to find, as this part of the gut lies deep and is fixed. The opening was with great difficulty carefully closed with fine iron-dyed silk, the continued suture being employed. After the abdominal cavity had been repeatedly filled with a very weak, tepid solution of carbolic acid, and as often drained by the patient's being completely turned, the external wound was closed with two sets of sutures, the peritoneum being closed with the fine catgut continued suture, the abdominal wall with silk, a rubber drainage-tube being inserted at the lower angle.

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*Read before the Louisville Surgical Society, September 15, 1887. For discussion, see page 203.

The patient took chloroform poorly, vomiting a large quantity of undigested food, his exhaustion being extreme when the operation was finished. Hypodermic injections of whisky were necessary for the continuance of the operation. Not until after the forty-eighth hour did he appear to rally, his pulse being 140, the temperature never going above 101°. Morphine was freely used, profound narcosis being kept up, and nothing but ice and whisky were taken internally till after the fifth day, when he was given two drams of Flexner's beef juice and a half ounce of whisky every two hours for three days, when milk, beef soup, and other liquids were allowed. During this time there was no sign of pus or peritonitis, but a free discharge of bloody serum from the tube, the temperature remaining about normal after the second day.

The patient went on to an uninterrupted recovery, and was discharged August 6th with wound healed and no sign of hernia.

CASE 2: SUCCESSFUL OPERATION FOR THE RADICAL CURE OF INGUINAL HERNIA. Ed. J., aged eighteen, in male surgical colored ward, City Hospital, admitted on account of an eruption of the skin of lower extremities, being the subject also of a right oblique inguinal hernia. The protrusion descended to a point a little below the lower border of the pubis, and was regarded as an acquired hernia. The hernial tumor was about as large as a hen's egg, easily reducible, but descending whenever the patient assumed an upright position. On August 3, 1887, in the presence of Drs. Satterwhite, Smith, Leber, Godfrey, and the hospital staff, Dr. Smith administering the chloroform, the following condition was found and the following described procedure carried out: An oblique incision was made over the inguinal canal down to the sac, the hernia being reduced, when to our surprise it was found to be a congenital hernia, the tunica vaginalis being also the hernial sac, the intestinal contents descending only a little way into the scrotum, while the testicle rested several inches below.

Instead of using the sac as a plug to be incorporated in the sutures with which I proposed to close the inguinal canal, I had to content myself with simply sewing up the canal. This I did with four interrupted sutures of stout catgut, which approximated the pillars of the ring very snugly, leaving just enough space below for the passage of the cord and vessels, the third sutures taking up part of the surplus sac.

This operation was done under the strictest antiseptic precautions. Catgut was used as a drain from the lower end of the wound; the dressing being a broad pelvic band of cotton-flannel with perineal strap and firm compress of cotton. There was very little pain or inconvenience suffered, and the boy was walking about the ward surreptitiously on the fourth and remained up after the tenth day. The wound healed without pus, and by first intention throughout, the drain being removed on the third day. I have applied for the present a flat pad truss with light pressure, believing that this is good practice after any of the operations for radical cure.

The first patient was exhibited to the Society.

THE DIAGNOSIS OF SURGICAL LESIONS OF THE KIDNEY.*

BY H. HORACE GRANT, A. M., M. D.
Lecturer on Operative and Minor Surgery in the Kentucky School of Medicine.

A comprehensive and practical definition of *diagnosis* is something beyond the mere name of the malady or condition of the patient. It is the duty of the diagnostician to determine so much of the pathology of the disease and the physical condition of the patient as will indicate clearly the propriety of steps for his relief. We are as much in the dark after a diagnosis of compound dislocation of the knee as before, unless we are instructed as to the propriety of reducing the luxation and closing up the wound, or resorting to excision, amputation, or a general plan of expectancy. So, in the consideration of surgical lesions of the kidney, it is important to determine: (1) Is the affection one any operation is likely to benefit? (2) If the nature of the trouble is undeterminable, will exploration by incision probably aid in its relief? (3) Will the appropriate operation, when determined on, accomplish a compensating service? These conditions are more important to decide than the nomenclature of the affection, and are as inseparable from complete diagnosis.

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*Read by title at the Kentucky State Medical Society at Paducah, June, 1887.

Various plans have been suggested for determining which kidney is diseased in any case not presenting external local signs when operation is contemplated — also, for eliminating the possibility of the rare anomaly of solitary kidney. None of these plans, however, are satisfactory, and, as a matter of fact, almost none of them are practicable.

Catheterization of the ureters successively, as suggested by Simon, at all times difficult, is possible only in women. External palpation and rectal exploration are productive of little light.

Polk, of New York, suggested, several years since, compression of the ureters successively between a catheter in the bladder and the finger in the rectum, the urine excreted by the uncompressed ureter being, after each trial, subjected to comparison. Before the trial the bladder must be emptied and washed out. The uncertainty of all plans to establish the differential diagnosis, the great rarity of congenital absence of the kidney, and the almost universal local indications in cases demanding operation, divest this consideration of practical importance.

In considering the surgery of the kidney, the operator meets at the outset insurmountable difficulties in diagnosis. None of the lesions present pathognomonic symptoms or signs, and there is found a remarkable and confusing intercurrence of features belonging to diseases of other viscera. A diagnosis is to be accomplished by exclusion, by wise and judicious reasoning and speculation, reserving the safe and decisive step of explorative incision to complete the solution in proper cases. I use the word *safe* advisedly, in view of the fact that I have collected a report of 53 cases operated on since the last meeting of this Society, with a mortality of only 20.45 per cent. Of these 53 cases, 16 are nephrotomies, with only 3 deaths, 18.8 per cent. When we remember that, so far as is possible to judge, none of these deaths from nephrotomy—a graver step always than exploration—was from the operation, the safety of such an interference, in view of its importance, is incontestible. I append the report of these cases in detail.

Tumors. The only tumors of the kidney proper to which clinical importance attaches are malignant neoplasms (carcinomas and sarcomas). These both are rare, and the cancers are usually secondary, a feature which indicates the diagnosis. Malignant neoplasms are unilateral, with preference for the right kidney.

The tubules are first affected; soon, however, the whole gland becomes involved in a rapidly progressing degeneration. The medullary variety of cancer is the most frequent type, and then scirrhus. Occasionally only the capsule of the gland is involved, with infiltration in surrounding tissues and organs. These secondary deposits appear to have no regularity of location, occurring indifferently in mesenteric glands, the liver, heart, lungs, etc.

Diagnosis. Usually the appearance of a tumor in the kidney region is the first definite symptom. This tumor frequently enlarges slowly. Orlouski mentions a case prolonged over six years. Usually, however, the growth is rapid. Renal tumors often get enormously large; they present a lobulated feel with rounded outlines, growing downward and outward at first, then across the abdomen, displacing the viscera, with much mechanical discomfort. All kidney tumors present prominently to the hand. From the position of the kidney, the colon is in front and toward the median line. Intestinal resonance is almost never found to the outer side of the tumor. Morris found these tumors usually fixed, ex-

No.	Literature.	Operation.	Operator.	Disease.	Age.	Sex.	Result.	Remarks.
1	New York Surgical Society, Nov. 22, 1886.	Nephrotomy	F. Lange	Pyo-nephrosis	33	F.	Recovered.	
2	" " " "	Nephrectomy	"	"	38	M.	"	
3	Annals Surgery, January, 1887	Nephro-lithotomy	K. Franks	Stone	28	M.	"	
4	*Deutch Zeitschr. f. Chir*	Nephrectomy	Orlouski	Cancer	38	F.	"	Improved greatly; dismissed cured.
5	*Revue de Chirurgie*, November 1886	Nephrotomy	Champouniere	Calculus		F.	"	
6	" " " "	Nephrectomy	"	Pyelo-nephritis			"	
7	" " " "	"	"	Suppurative neph			Died.	Moribund at operation; died of shock.
8	" " " "	"	"	Hydro-nephrosis			"	Uremia.
9	New York Surgical Society, 1887	"	F. Lange	Suppuration	40	F.	Recovered.	
10	" " " "	Nephro-lithotomy	"	Stone	53	F.	"	
11	*Revue de Chirurgie*, November, 1886	Nephrotomy	Brouilly	Suppurative nephritis			"	
12	" " " "	"	"	Intra-renal disease	20	M.	"	
13	" " " "	Nephrectomy	"	Floating kidney			"	
14	" " " "	"	"	" "			"	
15	" " " "	Nephrotomy	Relequet	Abscess			"	
16	" " " "	"	"	Cancer			Improved.	
17	" " " "	"	"	Suppuration			Recovered.	
18	" " " "	"	Demons	Pyo nephrosis			Died.	Of exhaustion.
19	" " " "	Nephrectomy	"	Sarcoma			Recovered.	
20	" " " "	"	"	Pyonephrosis and peri-nephretic abscess			"	
21	" " " "	Nephrotomy	Malherbe	Renal abscess			"	
22	" " " "	Nephrectomy	Schwartz	" "			"	
23	" " " "	"	Jeannel	Tumor			Died.	Of shock.
24	" " " "	Not specified	Pean	Not specified			Recovered.	
25	" " " "	"	"	" "			"	
26	" " " "	"	"	" "			"	
27	" " " "	"	"	" "			"	
28	" " " "	"	"	" "			"	
29	" " " "	"	"	" "			Died.	Of uremia.
30	" " " "	Nephrectomy	Boekel	Hydatid			Recovered.	
31	" " " "	"	Legoud	Tumor	45	F.	"	
32	" " " "	"	"	Floating kidney			"	
33	" " " "	"	Ollier				"	
34	" " " "	"	Park	Tumor	111 m		"	
35	Annals of Surgery, April, 1887	Nephrorrhaphy	Morris	Floating kidney	41	F.	"	
36	" " " "	"	"	" "	56	F.	"	
37	" " " "	Nephrotomy	"	Abscess	23	M.	"	Pott's disease appeared in some months.
38	" " " "	"	"	Hydro-nephrosis	26	M.	"	
39	" " " "	"	"	Pyo-nephrosis	43	M.	"	Chronic cystitis.
40	" " " "	Exploration	"	Pyelo-nephritis	58	M.	Died.	Disease of ureters and bladder.
41	British Medical Journal, Vol. 2, 1886	Nephro-lithotomy	Pikering	Stone	23	M.	Recovered.	
42	" " " " "	Nephrectomy	Cullingworth	Sarcoma			"	
43	American Med. Ass'n Jour., May, 7, '87	Nephrotomy	Belfield	Pyelitis	26	F.	"	
44	" " " " "	"	"	Contusion	30	M.	"	
45	" " " " "	"	"	Pyelitis	48	M.	Died.	On eleventh day, of uremia.
46	Philadelphia Medical News, Jan. 29, '87	Nephrorrhaphy	Agnew	Floating kidney	32	M.	Recovered.	Relapsed. (See 47.)
47	" " " " "	Nephrectomy	"	" "	32	M.	"	
48	" " " " "	"	"	Cystic disease	60	F.	Died.	
49	*Arbiten Chir. Klinik., University Berlin*	"	Bergmann	Pyelo-nephritis		F.	Recovered.	
50	" " " " "	"	"	"		F.	Died.	
51	" " " " "	"	"	Pyelitis			Recovered.	
52	" " " " "	"	"	"			"	
53	" " " " "	"	"	Perinephritic abscess			"	

Fifty-three operations on the kidney, of which 25 are nephrectomies, with five deaths.
" " " " 16 are nephrotomies, with three deaths.
" " " " 3 are nephro-lithotomies, no deaths.
" " " " 3 are nephrorrhaphies, no deaths.
" " " " 6 are not specified, with one death.

Total percentage of recoveries .... 79.55 per cent.
Estimating for convenience the unspecified death as from nephrectomy, the percentage of death from nephrectomy becomes .... 23.00 "
Total percentage of death from nephrotomy .... 18.80 "

cept in cases of floating kidney; but Bergmann, in a paper read before the Berlin Medical Society, declares they grow, some fast, some slow; that some metastases are early, some late, and that there is no constancy in regard to fixation. They are unilateral, with full rounded borders, generally solid.

Constitutional symptoms and the cachexia are usually not prominent in the early history. Prof. Ouchterlony reported to the American Medical Association, in 1886, two patients with largely developed tumors, seemingly gaining rather than losing flesh; later on, however, wasting with anorexia and bad digestion occur. When pressure is made on the common duct, jaundice is present. Generally the tumor is tender and sensitive, pain not usually prominent, and often delayed. The occurrence of hematuria, dependent on degeneration in the renal pelvis, is a symptom of great importance. It is present in about half the cases of renal cancer. Frequently it is profuse, and when once established is likely to recur every few days throughout the case, occasioning at times great anemia. Particles of the morbid growth are at times found in the urine, which, under the microscope, declare the nature of the trouble. Aside from these features the urine furnishes no indications of moment. The chief symptoms of renal tumor then are, the large, hard tumor of rapid growth, and its usually fixed position *behind* the peritoneum and colon, the hematuria attending the progress of the growth, the particles in the urine, and the age of the patient, sarcomas occurring most frequently in children and young adults, and carcinoma oftener in middle life.

Tumors* of the kidney are to be differentiated from hydro-nephrosis by the following comparison, given by Ouchterlony:

RENAL CANCER.	HYDRO-NEPHROSIS.	
1. Generally unilateral.	1. Hydro-nephrosis.	
2. Hard or more than semi solid.	2. Soft.	
3. Rarely fluctuates.	3. Fluctuates.	
4. Permanent tumor.	4. Liable to suddenly subside at times, with copious discharge of urine.	
5. Tumor often of enormous size.	5. Not so.	
6. Tumor generally fixed.	6. Movable.	
7. Does not descend with diaphragm.	7. Descends with diaphragm.	
8. Of rapid growth.	8. More slow.	
9. Cachexia.	9. Absent.	
10. Hematuria.	10. Absent.	} Added by the reporter.
11. Blood on aspiration.	11. Water.	

Differentiation from gastric cancer by the absence of hematemesis, the size and location of the tumor, and from enlargement of the spleen by the movability of the latter and the absence of the descending colon. Very large spleen masses present a broad, resisting, fairly smooth surface across the abdomen, while large tumors of the kidney are rounded and lobulated, always more or less uneven.

Tumors of the liver are free of the colon, dull on percussion both in front and externally. The presence of jaundice and other evidences of biliary derangements simplify the diagnosis, though certainty is frequently out of the question.

Ovarian tumors grow upward and have the intestines behind. Aspiration gives the clue.

The importance of bearing constantly in mind the characteristic features of the compared diseases will be better appreciated by remembering that renal tumors have been confounded with nearly every tumor to which the abdominal viscera is subject—tumors of the stomach, spleen, pancreas, omentum, uterus, bladder, ovary, the various *tumor diseases* of the rectum and adjacent tissue, psoas abscess, aortal aneurism, fecal impaction, etc. Therefore it is a source of caution as well as consolation to remember the many errors of diagnosis with which the history of kidney tumors abounds.

Treatment. Nephrectomy offers the only hope. The percentage of recovery from the operation is perhaps as high as fifty, but recurrence is the rule. Children have a less favorable prospect than adults.

Displacement. Floating kidney, though always a rare condition, is observed more frequently in women than in men. According to Newman only every eighth patient is male. The affection is generally unilateral, with a strong predilection for the right side. Morris reports a case in which both kidneys were displaced. The left one not causing any symptoms, though freely movable, was not disturbed; a nephrorraphy corrected the right displacement.

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*By tumors of the kidney is meant malignant new growths.

Floating kidney is a disease of young adult life. Though perhaps the attachments of the kidney are for a long time weakening or stretching, the symptoms indicating displacement are rarely observed before the twentieth year. Such condition becomes less and less common after the climacteric and late in life. The diagnosis is usually not difficult.

A movable tumor in the side of abdomen, especially the right, of the configuration of the kidney, is the most significant indication. Dragging pains in the loins, neuralgic in character, attended by sick stomach, loss of appetite, depression of spirits, oftentimes severe and distressing pain on exertion, with various other subjective symptoms, accompany the tumor. The sex and age of the patient are important data in the discussion.

The tumor may, on recumbency, return to its normal situation, or may be easily pressed back by the hand, though promptly returning when released, or it may glide about superficially in the abdomen on motion or pressure. Usually the tumor is somewhat sensitive to pressure, but in some cases a very movable kidney occasions little or no pain.

Such a tumor is to be differentiated from the spleen, from impacted feces, and from distended gall-bladder. The tumor is smaller and much more movable than the spleen. The history of sudden appearance and subsidence of the tumor excludes the spleen.

The hardness and the irregular shape and immobility of fecal impaction indicate its character usually.

In a case of floating kidney now under my observation, the tumor when first discovered occupied a position usually taken by a greatly distended gall-bladder. Through the thick and distended walls the tumor could not be much manipulated. The woman, aged forty-seven, was suffering severe pain in the right loin, with nausea, vomiting, and much distress. As the distension passed away the character of the tumor was determined, and the kidney pressed back and held in place by a flannel bandage. The woman, a hard working German, has occasional attacks of pain after great exertion, but does not suffer as before.

Treatment. Nephrorraphy, though not always successful, is indicated in cases of floating kidney accompanied by persistent and severe distress and pain. The prognosis as to life is always good. Nephrectomy is held in reserve when nephrorraphy fails.

Tuberculosis of the kidney occurring primarily is very infrequent. In by far the majority of cases, the family and individual history of tubercle, is definite, an important link in diagnosis. Tubercle is usually developed between the twenty-fifth and the fiftieth year, though it manifests itself occasionally in children and in old age. Secondary tuberculosis is not uncommon. Affections of this character are usually insidious in development, and it is not unlikely that many cases of supposed primary nephro-phthisis are really secondary deposits. Surrounding glands are usually implicated early, and the priority of such deposits is not always easily established. The kidney may become honey-combed with abscesses before suspicion is directed to it, and pus sometimes appears in the urine only late in the disease. A tumor sometimes is formed by pyo-nephrosis, as a result of obstruction of the duct. The kidney sometimes becomes appreciably enlarged, though rarely enough to simulate tumor.

The diagnosis is based on pain and tenderness in the loin, blood-stains in the urine in a good proportion of cases, the tubercular history and the general symptoms of hectic and decline. These indications may precede the appearance of pus in the urine. Later on the amount of pus becomes even larger; bacilli tuberculosis are frequently found in it. Disease of the bladder is to be excluded by the symptoms, and by the absence of pus and mucus, free in the vessel. In tuberculosis the pus is intermingled freely with the urine. In determining for operation when local signs are not distinct, it may become necessary to employ means to decide which kidney is affected. Attention has been directed to the best methods.

Operative interference in primary tuberculosis limited to one gland should be, according to S. W. Gross, first, a nephrotomy, to be succeeded if needed by extirpation. In secondary tuberculosis, the difficulties of diagnosis and the likelihood of deposits in other organs, limit the usefulness of surgery to a very few cases.

Nephrolithiasis. Calculi, both the uric acid variety and the oxalate of lime, of very considerable size, frequently weighing two or three drams, are found in many *post-mortems* imbedded in the kidney substance or free in the pelvis and ureters. Stones too large to pass the ureters, or attached to kidney substance, become permanent foreign bodies, growing sometimes for years without occasioning any appreciable or understood effect. The size and number of the stones and their position in the kidney influence the symptoms the affection causes, inflammatory and obstructive features being the marked points. Pain of an aching, uneasy character, sometimes becoming aggravated to a nephritic colic, is limited to one side, referred to the back and thigh. The exacerbations are usually of short duration, occasioned by undue exertion, and, unlike the familiar nephritic colic, are frequently relieved by recumbency and rest. The sudden severe pain is probably due to displacement of the calculus into the ureter. During and after the attack pure blood is sometimes expelled. Hematuria appears to be chiefly a feature of these attacks of colic, as it is usually only seen succeeding them. Bloody urine attends some cases not characterized by these attacks, but as a rule hematuria is uncommon except as above explained. Very severe suffering from renal calculus may be, however, unattended by hematuria. Drops of blood and pus are detected from time to time in the urine of most cases. Pain in the back and loin continues; tenderness and shooting pain in the corresponding testicle is a common symptom; small particles of gravel (and occasionally albumen) found in the urine; urine, acid in reaction, deposits pus on standing, but no mucus unless disease of the bladder be a complication. As the symptoms increase in severity the general health of the patient becomes greatly broken. If the ureter be permanently obstructed, the kidney pelvis may dilate, and hydro-nephrosis is the result. Such a condition simplifies the diagnosis on aspiration of the tumor. Symptoms of the character described above, sufficiently distinctive to implicate the kidney, simulate those of tuberculosis, which disease is frequently a complication. Disease of the bladder occasions corresponding deposits in the urine; but alkaline reaction and free intermixture of mucus with the pus, nervous symptoms, notably suppression of urine, frequently seen attending disorders of the genito-urinary system, are noted during the attacks of colic.

Franks reports a case in which repeated attacks of suppression of urine occurred, though the other kidney did perfect duty after the operation.

Champonniére did a nephrotomy on a woman who passed not a drop of urine for thirteen days before the operation, and for the twenty-one succeeding days no urine was voided except what escaped through the wound.

Treatment. Nephro-lithotomy is a most successful and satisfactory operation in the earlier stages. When the kidney is much diseased, the more extreme step of nephrotomy, or perhaps nephrectomy, is the only certain means of obtaining a flow. These conditions can only be made out after incision.

Hydro-nephrosis is practically little more than a symptom of the above considered affection. It is the result of obstruction of the ureter, most commonly by far, by calculus. In this article hydro-nephrosis is regarded as unilateral, as those cases are rare where neglect permits obstruction at the bladder or urethra to dam up the urine in the ureters, the treatment is directed to the perineum or the bladder rather than to the kidney. The obstruction, as noted, may be calculus, or pressure on, or disease of the ureter. The tumor may be gradually formed or it may appear suddenly, as the obstruction is partial or complete.

Hydro-nephrosis is most common in women who have borne children, and is at times a complication of pregnancy. The diagnosis is usually easy. The tumor is sometimes enormously large, especially when the accumulation is gradual. It fluctuates sensibly. Usually there is not much pain until the distension is considerable, when, as in a case operated on by Morris, it may amount to an unbearable agony. A history of repeated attacks of nephritic colic usually attends. Where the obstruction is incomplete, the symptoms come on gradually, and may continue unimportant for a long time. A sudden yielding of the obstruction sometimes dissipates the tumor in a copious discharge of urine.

In hydro-nephrosis the urine is not changed in quantity or character usually, unless some complication exists. Aspiration of the cyst is an important diagnostic aid. The fluid is urine-like, of low specific gravity, however, sometimes containing pus. These cysts rarely get very large, and frequently they cease to grow after a time, and are consistent with comfortable health for many years.

Hydro-nephrosis is to be distinguished from abdominal dropsy and from hydatid tumors of the liver. The size of the tumor, its unilateral situation, its marked symptoms when large enough to be confounded with ascites, together with the results of aspiration, eliminate both ascites and ovarian dropsy. The rarity of hydatids of the liver and a comparison of the aspirated fluid with urine will determine the nature of the case.

Treatment. When the symptoms of hydro-nephrosis are not urgent, unless the exact nature of the obstruction can be divined, operation is to be deferred. When, however, the destruction is very great, or the general health suffers much, exploration is indicated.

A condition of *pyo-nephrosis*, a result of suppuration in the cysts, adds greatly to the gravity. Pyo-nephrosis may be the result of some injury to the original tumor, or some intercurrent disease, or to general failing health. Pyo nephrosis also occurs in the course of tuberculosis of the kidney. The tumor is frequently polycystic, and hence presents an irregular feel.

In addition to the symptoms of hydro-nephrosis, pus is found often abundantly in the urine, and the general features of hectic are added. Pyo-nephrosis is often protracted for many years; but this stage of hydro-nephrosis is much graver than the first described condition.

Aspiration is useless in pyo-nephrosis. When the symptoms demand operation, a nephrotomy is indicated, succeeded by nephrectomy, if not relieved, as advised by Gross.

Traumatism. Penetrating wounds of the kidney may be from gunshot or from stabs. However, the protected and deep situation of the kidney renders knife wounds infrequent. The symptoms are usually unmistakable: profuse and prolonged hematuria, perhaps bloody urine dropping from the wound, coupled with the direction of the wound and condition of surrounding viscera, are the points in diagnosis. Shock in wounds and contusions of the kidney is usually out of proportion to the apparent injury.

Contusions in the peri-renal tissue and of the kidney are usually caused by extreme violence. More or less hematuria attends. Rupture of the kidney is indicated by hematuria in the region. The ureters may become plugged by coagula, and cessation of hematuria with suppression of urine become features. If life be prolonged, peritonitis is early developed. Peri-renal suppuration succeeds delayed resolution, frequently developing weeks after the accident. The treatment is indicated by the conditions found.

Peri-nephritic abscess is sufficiently common to be a familiar affection. It is usually of tedious development. Even the so-called *acute abscess* following severe contusion is frequently delayed. The most common origin of chronic abscess is, perhaps, some slight contusion in the course of general constitutional debility or acute illness. It occurs not infrequently in children, but is perhaps most common in young male adults.

The symptoms are usually insidious—slight pain in the corresponding side and back, with some elevation of temperature and a general lassitude. In a case under my care a few years ago the diagnosis was typhoid fever, until the fullness in the loin undeceived me. Pain is increased on motion, hence the patient resists movement of the muscles. The decubitus is peculiar, resembling somewhat that taken in hip disease. The fold naturally noticed about the crest of the ileum is effaced. Though the fever is not marked, yet there is depression, loss of appetite, coated tongue, constipation, and gradually increasing severity of symptoms. Fluctuation is not easily detected, and is usually late, but fullness of the loin with pitting, and redness are noticed in the early stages. Rigors and perspiration are found later on.

The urine, though high-colored, perhaps, and scanty, is not specially altered in character, except in event of complication, such as calculus, when the features vary accordingly.

Symptoms of this character warrant the aspirator, which will safely and surely settle many points. Pyo-nephrosis may be confounded with perinephritic abscess; but the latter forms more rapidly, has early constitutional symptoms, no defined tumor, unintermitting pain, no pus in the urine, and no intermixture of urine with aspirated pus. Its symptoms are in every way more acute. The presence of the fullness, the local pain and decubitus, together with attending features, well exclude typhoid fever and other acute diseases of similar symptoms.

Treatment. Free evacuation of the abscess is indicated as soon as diagnosis is made.

In the mention of these lesions it has been my purpose only to suggest the *salient features* of a variety of affections generally rather vaguely considered. The profession at large not having attention directed to these conditions as classified surgical diseases, perhaps has not kept pace with the surgical treatment of them. In this article I must be content with briefest mention of symptoms and differentiation; but at the close let me repeat that after all symptoms have been weighed there remains the certainty of diagnosis in *exploration*. The most eminent authorities on abdominal surgery of every description unhesitatingly pronounce in favor of explorative laparotomy as infinitely safer, under aseptic and antiseptic methods, than the expectant plan in all threatening cases, and as promising not only accuracy in diagnosis, but in many instances acting as curative treatment.

Louisville.

A Remedy for Neuralgia.—It is claimed that a few drops of the following, eau de cologne, ether, chloroform, ʒiij., poured on a handkerchief previously wetted with cold water, and placed on the seat of a neuralgic pain, gives instantaneous relief. It is also very efficacious for nervous headache. A burning sensation is felt at first, but quickly disappears. *Medical Record.*

Societies.

LOUISVILLE SURGICAL SOCIETY.

Stated Meeting, September 15, 1887.

Dr. Ap Morgan Vance read a report of two cases of Abdominal Surgery. (See page 195.)

DISCUSSION.

Dr. Roberts said Sir William McCormack had spoken of the Kegan case, operated on by himself and reported in a previous number of the Journal, as being the first reported case in America of laparotomy for internal wound. He also mentioned a case of his operation for radical hernia in which the result was comparatively good. On being asked by Dr. Vance if he applied the truss after the operation, he replied that he did not.

Dr. Cartledge asked what was the suitable age at which to risk an operation for the radical cure of reducible hernia. He believed that the truss applied after operation, by its pressure, weakens the cicatrix and tends to cause a return of the hernia. He mentioned that Dr. Mosby, an eminent authority in such matters, advises that no truss be applied after the operation.

Dr. Vance said that the rule for radical operation is different in each individual case. It depends upon the ability of the patient to buy or to wear a truss. He had saved eight out of ten cases operated upon for strangulated hernia. Abbey had operated fifty-five times without an accident. He had seen Gerster operate successfully in an adult at the same time for both a varicocele and a reducible hernia.

Dr. Roberts said he would advise the operation for radical cure irrespective of age in such cases only as could not bear a truss or whose hernia the truss would not retain.

Dr. D. W. Yandell said that the rule for operation could only be determined by the patient's surroundings. In a case of hernia in an intelligent family, possessing the ability both to buy and use a truss, the truss alone should be relied upon; but with people who have neither the means to buy nor the ability to use a truss, and who are obliged to labor for a livelihood, the operation is desirable. In so far as the proper age for operation is concerned, the whole matter hinges upon the recuperative power of the patient. The danger in old people is feeble vitality not favoring good union. He would advise the operation only in such cases as come within all these mentioned requirements.

Dr. Vance suggested that after the operation a flat shield truss, not the hard-pressing truss in ordinary use, should be used.

Dr. Cartledge said that, outside of all other conditions, there must be a rule respecting the operation dependent wholly upon age; in all the reducible hernias of childhood he would rely wholly upon the truss. If at say thirty years of age the hernia still persisted, he would deem an operation justifiable or called for. He thought the expectation of life ought to play a considerable part in determining the matter of operation for radical cure. He did not believe that in a man past the meridian, who had lived thus long with a hernia, and whose expectation of life was proportionately reduced, ought to be subjected to the dangers of the operation; but that the young adult who had failed of the truss cure with a comparatively long life before him, was eminently a fit subject for the operation.

Dr. Vance called attention to the fact that every ruptured person, although he might wear a truss, is liable to the danger of strangulation. He had never seen a case of strangulated hernia except in persons who had worn a truss.

Following this was an extended discussion of the treatment of hernia by the injection method of Heaton and others.

Dr. Rodman, Pathologist of the Society, exhibited three cases of tumor of the mammary gland removed in the practice of Dr. D. W. Yandell. One of adeno-fibroma, in which there was no pain and no enlargement of the axillary gland. One of scirrhus, along with which were a number of enlarged axillary glands. An interesting feature in this case was the fact that, contrary to the rule in scirrhus, the nipple was not retracted. The third was a case of encephaloid in a woman fifty-five years of age, in which in one year's time the growth had reached enormous dimensions.

NINTH INTERNATIONAL MEDICAL CONGRESS.*

Held in Washington, D. C., September 5, 6, 7, 8, 9, and 10, 1887.

SECTION IN DISEASES OF CHILDREN.—MONDAY, SEPTEMBER 5TH—FIRST DAY, AFTERNOON SESSION.

The President, in his opening address, referred to the practical value of the papers about to be presented, and congratulated the section on the large number of papers which had been contributed by prominent men in active practice in England, Scotland, France, Germany, and South America. The subject of intubation of the larynx would be considered in several papers. Important contributions in this connection would be read from M. Bouchut and Dr. O'Dwyer. The name of the former will always be honorably mentioned for his experiments in this direction, and Dr. O'Dwyer would be remembered by posterity as one of the benefactors of mankind.

The first paper read before the section was by Jules Simon, of Paris, who called attention to

A FORM OF CEREBRAL IRRITATION IN CHILDREN,

independent of organic lesion, and not the result of heredity or syphilis, but due to the deplorable irritation of young infants, even those at the breast, who are, in many cases, constantly harassed by the nurse by loud singing and sudden lights, and are liable to be excited by tea, coffee, or spirits, either directly or through the milk of the nurse. Add to these causes the feverish excitement which spreads around the cradle of the infant in modern society, and the result is a condition of cerebral irritation in which the child is unduly agitated by the most trivial causes. Sleep is light and frequently interrupted; exaggerated reflexes produce vomiting, subsultus, and convulsions. The signs of precocity become more painfully evident when the child reaches the age of two or three years. He is in constant motion. The eye is restless and the expression vacant. The mind is alert, but incapable of application.

The cerebral irritation thus manifested may appear in the first months of life or it may gradually unfold itself at a later period. It terminates toward the age of five years, either by cure or cerebral sclerosis, epilepsy, or meningitis.

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*From advanced slips supplied by the New York Medical Record from its special report.

It is the duty of the physician to secure a strict hygiene, with special view to prevent nervous excitement caused by unusual noises, or sights, or stimulating food and ill-advised friendly and social attentions. The open air and residence at the sea-shore or in the country are desirable, and medication, when required, should be by the bromides.

Dr. S. H. Charlton, of Seymour, Ind., had recognized the condition described by Dr. Simon, and had traced the cause in some cases to malaria and prolonged hot and dry weather. He emphasized the influence of heredity in this class of patients.

The brief communication of M. de Saint-Germain was as follows:

"Not being able to attend the Congress, I send a note from my surgical experience. What I bring is not a stone for the edifice, not even a pebble, only a grain of sand. But each must do the best he can. Please accept the will for the deed.

"He who invents a surgical operation receives great credit. Recognition, at least, should be given him who substitutes for two operations two simple procedures, less dangerous, quite as effective, and more easy to perform. I propose ignipuncture of the tonsils and preputial dilatation in place of tonsillotomy and circumcision.

"IGNIPUNCTURE OF THE TONSILS.

"Tonsillotomy is not free from the possibility of fatal accidents. To mention uncontrollable hemorrhage and invasion of the wound by diphtheria is to make it clear that the operation is not so harmless as has been supposed.

"Krishaber tried the thermo-cautery, but his application was so superficial that treatment was indefinitely prolonged.

"I operate with the aid of a modified Smith's gag, thrusting the thermo-cautery into the tonsil to the depth of three eighths of an inch. Two to four applications, at weekly intervals, reduces the tonsil to a shriveled and insignificant stump.

"As to

"PREPUTIAL DILATATION,

it may well take the place of circumcision, which is sometimes followed by serious hemorrhage, diphtheritic invasion of the wound, or partial gangrene.

"I reserve circumcision for those cases alone (about one in three hundred) in which dilatation is impracticable. I use a two-bladed dilator instead of the three blades of Nélaton, introducing it, and slowly expanding the orifice. The operation is finished by separating the adhesions with a grooved director, and is followed by daily massage, in which the glans is alternately exposed and covered.

"With both of these simple procedures I have always secured excellent and durable results, and have met with no untoward complications. In view of the great frequency of these two classes of cases, am I not right in presenting these simple and effective procedures as a surgical advance?"

Dr. Lewis A. Sayre, of New York, then read a paper on

THE DELETERIOUS RESULTS OF NARROW PREPUCE AND PREPUTIAL ADHESION.

His first paper on this subject was published in the Transactions of the American Medical Association. He was the first to draw the attention of the public to this important subject. It is now generally admitted that paralysis and various other nervous symptoms, including a want of co-ordinating power, are in some cases induced by the pressure of the prepuce on the glans. The remedy is removal of the obstruction and of the retained and concrete smegma, and such an arrangement of the parts that the prepuce shall glide *easily* to and fro over the glans, without restriction, permitting cleanliness, and thus removing one great source of danger.

For this proper arrangement of the prepuce it is necessary in some cases to perform circumcision, or an actual removal of a small portion of the prepuce, and sometimes to dissect it from *actual adhesion*, which is a very different thing from ordinary and normal agglutination. But there is no occasion for removing any tissue, unless there is great redundancy *with constriction*. And in the great majority of cases the object sought can be easily accomplished by pushing a grooved director as far back as possible, and then dividing with the curved bistoury enough tissue to allow of tearing back the prepuce and uncovering the glans. The next step is to make a slight nick with the scissors, or bistoury, through the thickened fold of the edge of the frenum. Having done this, it is easy with the thumbs and forefingers to tear down the frenum and other adhesions, expose the glans, and remove from the sulcus behind the corona the hardened smegma, sometimes containing chalky concretions. In this procedure there is little loss of blood and no loss of tissue whatever. A stitch on either side of the incision, between the skin and the mucous membrane, may or may not be required. Thus the glans is left partially covered, and it may as well be *freely* and *easily* uncovered. Having been responsible for bringing the subject before the profession, the writer wished to raise his voice against the mutilation and disfigurement of the organ which is often seen, which by too free removal of the prepuce leaves the glans entirely unprotected, as well as against the indiscriminate performance of the operation in cases where it can be of no avail.

The object of the paper was to harmonize two views—that of those who would operate in cases of infantile paralysis, and that of those who deny the existence of a paralyzed or even muscular inco-ordination from reflex genital irritation—by showing that there are cases of anomalous and extraordinary nervous manifestations certainly dependent on some irritation of the genital organs, in which an operation is not only justifiable, but absolutely demanded, and that in many instances the relief from all the strange symptoms has not only been immediate, but permanent after the operation, without any other medical or surgical treatment. It is also equally certain that any attempt to relieve a nervous disturbance dependent on some central lesion of the brain or spinal cord would result in no benefit whatever. The views of the writer were sustained by a large number of cases occurring in the practice of physicians in different parts of the country.

Dr. De F. Willard expressed his belief in the existence of reflex symptoms from genital irritation, and that many cases can be relieved by uncovering the glans. He advocated exposing the glans by manipulation with the thumbs and forefingers, without incision of the prepuce or frenum, continued and repeated until the prepuce is no longer tight.

Dr. I. N. Love, of St. Louis, Mo., had for many years practiced circumcision. He believed in the Mosaic law from the stand-point of sanitation, morality, and the general well-being of the child. He had not succeeded in inducing mothers and nurses to secure absolute cleanliness when the sulcus is habitually covered by the prepuce.

Dr. S. C. Gordon, of Portland, Me., also advocated circumcision and believed that it should be more radically performed than it usually is.

Dr. P. R. Furbeck, of Gloversville, N. Y., recognized the importance of uncovering the glans and securing easy motion of the prepuce, but believed in the value and importance of dilatation, because many parents refuse to accept the use of the knife. He recalled a case in which a child of six years was relieved from choreic symptoms by dilatation after circumcision had been strongly opposed.

Dr. Charles Warrington Earle, of Chicago, Ill., read a paper entitled

AN INVESTIGATION TO DETERMINE WHETHER THE ABSENCE OF SEWERAGE AND OF WATER-POLLUTION DIMINISHES THE PREVALENCE AND SEVERITY OF DIPHTHERIA.

He presented the results of a study of the causes of diphtheria in localities remote from sewer-gas influence in the less thickly populated Western States and Territories. He had received communications from a large number of physicians scattered over this great region.

His conclusions are briefly summarized as follows:

1. Diphtheria occurs in the mountains and prairies of the great Northwest with the same malignancy as in the East.

2. And with equal virulence in vicinities remote from sewers.

3. When once introduced, the residents of damp sod houses suffer with marked severity.

4. The infection is transported thousands of miles in some unrecognized vehicle.

5. There is abundant testimony that it follows the lines of railroads and steamers, making it imperative to increase the watchfulness and improve the methods of disinfection by railroad and steamboat companies.

6. The desirability of legal enactments obliging people of all classes to recognize their responsibility in regard to the control of contagious diseases.

Dr. W. Foster, of Putnam, Conn., reported the apparent connection between diphtheria and exposure to filth in two cases occurring in a town of 7,000 inhabitants, otherwise entirely free from the disease. The boys affected had been playing almost constantly for several days in and about a barn, the cemented cellar of which received sink-water and house-refuse as well as manure. Isolation and thorough disinfection prevented the spread of the disease.

Dr. F. E. Waxham, of Chicago, Ill., believed that diphtheria is due rather to the absence of sewers than to their presence. An impure atmosphere and the presence of filth and decomposing vegetable matter are important factors. Absolute cleanliness, which, of course, includes disinfection, is our best resort.

General Meeting—Thursday, September 8th—Fourth Day.

Dr. A. Y. P. Garnett, of Washington, offered the following resolution, which was unanimously adopted:

Whereas, It is proposed to hold at the city of Washington, in 1892, an international celebration in honor of the four hundredth anniversary of the discovery of America by Christopher Columbus, and an exposition of the history, arts, and industries of all nations:

Resolved, That the International Medical Congress favors this patriotic movement, and commends it to the nations of the world.

Dr. A. L. Gihon, U. S. Navy, offered the following resolution, which was adopted at the general session on Wednesday:

Resolved, That the President of the Congress be authorized to appoint a committee, to consist of an equal number of members from each nationality represented in the Congress, for the purpose of selecting the place of meeting of the Tenth International Medical Congress, to be held in the year 1890, which committee shall report on Friday morning, immediately before the address of Dr. Brandford.

The following committee was appointed on Thursday to name the next place of meeting of the Congress: Argentine Republic, Dr. Villa, of Buenos Ayres; Austria-Hungary, Dr. Faskas, of Buda-pesth; Belgium, Dr. Gervais, of Antwerp; Brazil, Dr. Freire, of Rio de Janeiro; China, Dr. Boone, of Shanghai; France, Dr. Landolt, of Paris; German Empire, Dr. Martin, of Berlin; Great Britain, Dr. Pavy, of London; Italy, Dr. Semmola, of Naples; Japan, Dr. Saiga, of Imperial Navy; Mexico, Dr. Alvardo, of Mexico; Russia, Dr. Reyher, of St. Petersburg; Spain, Dr. Lalearda, of Seville; Sweden and Norway, Dr. Tillman, of Halinstadt; Switzerland, Dr. Cordes, of Geneva; Turkey, Dr. Post, of Beirût; United States, Dr. A. L. Gihon, United States Navy; Egypt, Dr. Grant (Bey), Cairo.

Dr. P. G. Unna, of Hamburg, Germany, then delivered a general address in German on the

RELATIONS OF DERMATOLOGY TO GENERAL MEDICINE.

He endeavored to prove that every general practitioner has the greatest interest that dermatology should be more deeply and extensively studied. Dermatology, as a special branch, is still young, and not yet passed the state of formation. The immense difficulties in the way of the study of diseases of the skin, which have up to this time disturbed its continuous development, are in great part well founded, as well in the external position of this organ as in its complicated structure. The author demonstrated these complications in detail, showed the differences in the appearance of the symptoms according to regional differences of the skin, the changes in symptoms in the course of the development of skin diseases, the varieties produced by external agents, the influence of climate, season, nature of countries, of races, sex, and age. Among the external agents, the parasites, according to our present knowledge, occupy the most prominent place.

These difficulties will in future be overcome only by minute analysis of each of the several symptoms of skin diseases. All progress in this direction will be of the greatest value for general pathology and therapeutics, because these facts are proved in the human tissue by means of the naked eye. Dermatology, studied properly, will advance all other parts of medicine—internal medicine as well as surgery—occupying a middle ground between them. Unna recommends, in place of experiments on animals for pathological and therapeutical experiments, to use the human skin, and showed by several examples how this method has led already to the knowledge of new facts. The endowment of new chairs and of separate private laboratories is not sufficient for a thorough investigation of skin diseases. Unna recommends the establishment of a central institute, where noted scientists work together, where all means and methods of study are condensed. Then dermatology will be raised to the rank of one of our most important specialties in medicine, and it will contribute largely to the progress of knowledge in all branches. Finally, the speaker expressed the hope that the United States, always so liberal in the promotion of science, will be the first to develop this ideal.

General Meeting—Friday, September 9th—Fifth Day.

The Congress was called to order punctually at 10 A. M. by the President.

Assistant Secretary Dr. W B. Atkinson, of Philadelphia, made some announcements concerning excursions and receptions, after which the

Secretary-General, Dr. Hamilton, reported that the committee appointed on the time and place for holding

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had recommended Berlin, Germany, as the place, and the year 1890 as the time.

The report was unanimously adopted.

Dr. Hamilton also reported resolutions adopted by the Section in Military and Naval Surgery and Medicine, the purport of which was a recommendation of

UNIFORMITY OF THE REPORTS OF SICK AND WOUNDED IN ALL ARMIES OF THE WORLD.

Dr. Hamilton further reported, as having been adopted by the Section in Public and International Hygiene, the following preamble and resolution:

Whereas, the whole community has been shocked by the almost daily occurrence of terrible accidents on many of the railroads, causing considerable loss of life, and by the habitual neglect of the most elementary sanitary laws;

Whereas, as this section considers itself in a degree the guardian of public health; be it

Resolved, That the attention of this Ninth International Medical Congress be respectfully called to this most important question, and that it be requested to use its influence to obtain the necessary reforms.

The following were reported from the same section on Thursday:

After reading by Dr. Domingo Freire, of Rio Janeiro, representative in the Congress of the Brazilian Government, of a paper entitled "Vaccination with the Attenuated Culture of the Microbe of Yellow Fever," with demonstration of the microbe under the microscope, the following preamble and resolutions were adopted by the section:

Whereas, inoculation against yellow fever, if it proves successful after further examination, is calculated to benefit the human race throughout the world; and,

Whereas, the facts presented by experiments of Dr. Domingo Freire afford a reasonable assurance of its protective influence in Rio Janeiro; therefore,

Resolved, That this section recommends the co-operative investigation of the results obtained by yellow-fever inoculations as a protective against that disease, and that adequate appropriations by the governments represented in this Congress be made for that purpose.

Resolved, That this action be communicated forthwith for consideration in the general session of the Congress.

The President then called upon Dr. Charles D. C. Phillips, of London, England, to occupy the chair during the delivery of the general address by

G. Fielding Blandford, M. D., Oxon., F. R. C. P., London, late lecturer on Mental Diseases at St. George's Hospital, London, England. on

THE TREATMENT OF RECENT CASES OF INSANITY IN ASYLUMS AND IN PRIVATE HOUSES.

The inquiry was limited to the treatment of recent insanity only, without reference to the care and maintenance of the chronic insane. Recent insanity in very many cases is a curable disorder. What mode of treatment, then, will afford the best prospect of recovery? Will the latter take place only under asylum supervision, or is there a fair chance of curing the sufferer in a house taken for the purpose, or the house of a medical man? For the great majority of patients asylum treatment is the only available method, but there is a certain proportion of insane persons whom it is important to treat, if it be possible, outside an asylum, to save them from the stigma of having been the inmates of one, as this may seriously damage their future prospects and position. Among females some may be of high rank, whose friends shrink from the publicity of certificates and asylum surroundings; some may be young girls at the outset of life; others young mothers whom and whose children it is desirable to save from the reminiscence of an asylum. Among men there are not a few to whom confinement in an asylum will certainly bring a loss of employment tantamount to ruin. And a young man's future career may be marred by the same fact. It is, therefore, of importance to consider what mental disorders are likely to be transitory and capable of being treated in an ordinary house, or slight and free from danger to the patient and those about him, so that he may be able to live in such a house, or move from place to place under the charge of suitable companions.

The most transitory of all mental disorders are attacks of maniacal excitement, varying from undue elation and hilarity to very acute mania. The most frequent cases are those caused by drink, varying from ordinary delirium tremens to other forms of insanity seen more especially in women. Very similar forms occur, without any history of drink, in persons prone by inheritance to nerve disturbance. They arise after a sudden shock of bad, or even good news, or great fatigue, or other exhausting cause, and last a few hours, days, or weeks, the subsidence being often as rapid as the onset. The prognosis as regards recovery is often easy, the doubt being as to duration, and this will be solved by proper treatment.

Patients who are not actively excited or unduly elated, but depressed and melancholic, must be considered from a different point of view. They are more manageable, at any rate, in the less acute forms, but the disorder is more tedious, and treatment will have to continue for months rather than weeks or days. But many recover without asylum treatment, and many without the aid of a specialist. As the commencement of this depression is almost always slow and insidious, treatment outside an asylum is likely to be adopted at first, so that there is an opportunity of considering how far such treatment is answering or likely to answer. The first objection to be urged against the keeping of a melancholic patient in a private house is the danger of suicide. That an ordinary house with unguarded windows, staircases, and fireplaces offers more facilities for suicide than an asylum is certain. But asylums do not afford absolute protection, as our commissioners' reports abundantly testify. Nothing will effectually prevent suicide but the unceasing vigilance of good attendants, and this, in many cases, can be applied as well out of as in an asylum. One symptom which often necessitates removal to an asylum is obstinate refusal of food. When this is determined, and forcible feeding requires the aid of several assistants, it can hardly be carried out in a private house. Another reason why an asylum may be preferred is, that in an ordinary house or family the intense egotism so characteristic of melancholia is fostered rather than removed by the concentration of the attention of all upon the patient and his delusions. In an asylum, especially a large one, he becomes a unit in the number of those treated, and this of itself is often highly beneficial. There is one more variety of insanity which can often be treated out of an asylum. This is acute primary *dementia*, or *stupor*, as it is sometimes called.

These patients, though often very lost and idiotic, are seldom dangerous. With plenty of food, air, and exercise, they will get well in a private house, and as they are almost all young persons it is an advantage that they should escape the asylum reputation.

For the treatment of all patients in private houses one thing is absolutely requisite, viz., funds. Unless proper medical supervision, proper attendants, and proper quarters can be provided and paid for, to an asylum the sufferer should go. Friends are often willing to make a sacrifice, and profess they will pay anything. But this may mean a scanty and poverty-stricken supply of what is necessary, the funds become exhausted before recovery takes place, and then an asylum is necessary, and money is wasted which could hardly be spared. Where means are slender and the duration of the illness doubtful, it is better to send the patient to an asylum at once, and save the money for the convalescent stage. Treatment in a patient's own house is rarely successful, therefore the alternatives are an asylum or a house adapted to the requirements of the case.

At the close of the address, which was listened to with marked attention, Dr. A. Cordes, of Geneva, Switzerland, moved a vote of thanks to Dr. Blandford for his able and interesting address, which was seconded by Dr. P. H. Kretzschmar, of Brooklyn, N. Y., and then unanimously adopted.

The Congress then adjourned to meet at 9:30 A. M.. on Saturday.

GENERAL MEETING—SATURDAY, SEPTEMBER 10TH—SIXTH DAY—FINAL SESSION.

The Congress was called to order by the President at 9:30 A. M.

The Secretary-General reported resolutions from the Section in Climatology, concerning the establishing of a bureau of vital statistics; from the Section in Military and Naval Surgery and Medicine, with regard to the prohibition of the use of explosive balls in warfare; and from the Section in Public and International Hygiene, with reference to the necessity of teaching hygiene in the public schools.

Dr. Graily Hewitt, of London, on the part of the foreign members, and after making a few preliminary remarks, in which he conveyed their grateful thanks for the attention which the Congress had received, and their high appreciation of the success which had attended its work, offered the following resolution:

Resolved, On the part of the foreign visitors and officers of the Congress, that we desire to convey to the President of the United States our best thanks for his presence at the ceremony of the inauguration of this Congress; that we desire to express to the Executive Committee of the Congress, particularly to Dr. Henry H. Smith, Dr. John B. Hamilton, Dr. A. Y. P. Garnett, Dr. Toner, and Dr. Arnold, our very high appreciation of the efforts they have made for the efficient organization, action, and working of the Congress, which have resulted in so great a success; and that we would convey our warmest thanks to the citizens of Washington for the kind hospitality, both public and private, we have received during our pleasant visit to their beautiful city.

Dr. Martin, of Berlin, spoke in German, and expressed his thanks for the kindness that had been manifested to him and to the other foreign members of the Congress. He had come here with some doubt, but that had been all removed, and the great success would secure for it high rank among the Medical Congresses which had been held.

Dr. E. Landolt, of Paris, France, spoke in French, and said that he had been commissioned to express to the President of the United States their sentiments of profound gratitude. The sanction given by President Cleveland to our Congress has given the greatest charm to our stay in this capital. Returning to our hearths we will preserve the most grateful and respectful remembrance of the President of the Republic, and we say to the whole world that the United States, already so favored, possesses, above every-thing, a chief who directs them surely in the way of progress and prosperity.

Mr. Edmund Owen, of London, England, seconded the resolution presented by Mr. Hewitt, in a neat speech, which was received with ringing applause. When the history of this grand country is written we trust President Cleveland will have a niche in the Temple of

Fame side by side with those great men, Lincoln and Garfield. When you are in our country we love to hear you say, "We admire your Queen." We can say to you with all truth, we admire, we love your Queen, beauty and grace, and in seconding this vote of thanks we simply express a prayer that Mr. President Cleveland and Mrs. Cleveland may long continue in strength and health to preside over a happy, a prosperous, and united country.

The Secretary-General, Dr. John B. Hamilton, made a glowing speech, in which he returned his warmest thanks, especially to the foreign members, who had contributed by their presence, their writings, and their kind words, to the success of the Congress.

The President of the Congress, Dr. N. S. Davis, in the name of the medical profession of the United States, thanked the foreign members for their sympathy and their assistance in the work of the Congress, in which representatives from every State in the Union had been present to greet them, and then declared the Ninth International Medical Congress adjourned.

SECTION IN GENERAL MEDICINE—THURSDAY, SEPTEMBER 8TH—FOURTH DAY, MORNING SESSION.

Dr. Mariano Semmola, of Naples, Italy, read a paper on the

PATHOGENESIS OF ALBUMINURIA.

The paper was delivered in the French language. He gave the results of original investigations made at the University of Naples.

NOTES ON THE TREATMENT OF PHTHISIS, MORE PARTICULARLY THAT BY INTRA-PULMONARY INJECTION.

R. Singleton Smith, M.D., London F.R.C.P., Physician to the Bristol Royal Infirmary, England, read a paper on this subject. Since the last International Congress at Copenhagen, in 1884, numerous attempts have been made to do more than had previously been attempted for a disease in which the *vis medicatrix naturæ* does so little. The reader of this paper briefly summed up the various methods which have been recently suggested since the discovery of the bacillus of tubercle, and expressed his belief in the possibility of benefit by treatment directed toward the destruction of the bacillary growth. He reported the result of his experience with regard to gaseous rectal injections, and said that, in consequence of the absence of all indications of benefit, he had given up this method entirely. He alluded to the work done by Professor Pepper, of Philadelphia, and Drs. Beverly Robinson and White, of New York. In carrying out the method of intra pulmonary injections suggested by these and other workers he had met with partial success in a series of cases reported in the British Medical Journal, of 1886.

In consequence of the proved utility of iodoform in chest disease, as shown by a steadily increasing mass of evidence since its first introduction for this purpose by Professor Semmola, in 1878, and supported by a series of cases presented to the International Congress of 1884, in which the author found increase of weight, improved appetite, diminution of temperature, and general improvement, under the administration of iodoform given by the alimentary canal, it was thought that iodoform would be the best substance to employ for injection into the parenchyma of the lung. The clinical utility of iodoform being the ground on which its use for this purpose has been founded, the evidence is not shaken by any statistics as to the comparatively feeble powers of the drug as a germicide.

The insolubility of the drug is the chief difficulty; various solvents have been used, but with only partial success. Ether is objectionable, because of its effects on the brain; giddiness and other feelings of discomfort rather alarm the patient, and give rise to an unwillingness to have a frequent repetition of the injections. Eucalyptus oil is irritating. Two cases were mentioned in which acute pleuritis, with much pain, rise of temperature, and effusion had followed the injection of an iodoform solution in oil of eucalyptus. The vaseline oil, either alone or in combination with eucalyptol, had also been used, but the author still considers the question, what is the best fluid to inject, to be still unsolved. He did not advocate the use of solutions containing free iodine or bichloride of mercury, and he would not in future employ any fluid for injection into the lung which had not previously been tested hypodermically; if it gave rise to much inflammatory irritation in the subcutaneous cellular tissue, he would not venture to inject it into the lung. He was of opinion that injections into cellular tissue might possibly be of some little service, although there was as yet not much reliable evidence on this point, but they would serve as a reliable test whether any given fluid was suitable for deep intrapulmonary injection.

It is true that if iodoform be of use, as the clinical evidence indicates, then it is likely to be of far greater utility when injected, even in small quantity, into the focus of a diseased patch than when given in larger doses diffused throughout the whole body. Such injections have been shown to be not especially hazardous. Even the cases in which pleuritis has occurred had recovered completely from the attack in the course of a few days, and possibly the pleuritis was due to the failure of the fluid to pass beyond the pleural cavity into the lung-substance. Nevertheless, the author would not advocate the use of such injections in cases which were hopeless, neither would he employ them in cases where other and less active measures were accomplishing the object in view. He concluded his paper by urging perseverance in spite of failure, and by expressing his belief that what as yet was only a tentative investigation would ultimately result in numerous and signal successes.

The President made a few very complimentary remarks to Dr. Smith for his valuable paper. He was favorably impressed with Semple's inhaler.

Dr. Truax, of New York, said that he had little faith in iodoform, as he had cultivated the bacillus tuberculosis in its solution.

Afternoon Session.

Dr. Pavy, of London, England, spoke on

DIABETES.

This disease has always been regarded as an inscrutable one. There are still many points open for earnest study and patient investigation. The nature of the disease is that of faulty disposal and assimilation of food elements. Foods taken into the body are classed as nitrogenous, fatty, and the carbo-hydrates. It is this latter class that especially concern us in diabetes. Starch-dextrine, lactic and cane sugar go to make up this group, and each has an equal action, when ingested, in causing the condition of diabetes.

Normally the carbo-hydrates are disposed of in the portal vein, from whence they are carried to the liver and there assimilated. Experiments in which defibrinated blood or oxygen have been injected into the portal vein have been followed by marked evidences of sugar in the urine. Similar results have been produced in animals by forced respiration, thereby supersaturating the blood with oxygen. Vaso-motor paralysis of the hepatic vessels, by causing an excess of blood, prevents the proper deoxygenation of the blood, and similarly causes sugar to be present in the urine. This condition allows the carbo-hydrates to be converted into sugar and pass through into the general circulation.

In the celebrated experiments of Bernard, in puncturing the floor of the fourth ventricle, he also noticed a vaso-motor paralysis of the hepatic vessels. It is noticeable that in those cases of vaso-motor paralysis of the chylopoëtic system, where there is a red tongue, the disease is more severe, undoubtedly owing to the fact that the paralysis has extended more generally throughout the circulatory system.

In health there is only a faint trace of sugar in the blood and the urine. The latter is always a reliable index as to the amount of sugar in the blood. In diabetes the sugar reaches the blood directly, without going through the process of assimilation in the liver. In health sugar is stopped before it enters into the general circulation, but in diabetes it is found in the blood directly in proportion to the quantity of carbo-hydrates taken. Sometimes even in health there is sugar in considerable quantity in the urine, in cases where there has been taken very large quantities of the carbo-hydrates, showing that there is a normal limit to the assimilative power of the liver, which, if exceeded, will result in a diabetic condition. The liver is a fat- rather than a sugar-producing organ, converting animal starch into sugar and then into fat. The liver is different from other organs in that it has small arteries and large veins. The contents of the portal vein should be in a decidedly venous condition, otherwise we will get sugar into the general circulation.

Diabetes is of a neurotic origin, and it is well established that nervous conditions influence in a material manner the condition of the patient.

In considering these cases the first thing to do is to test for sugar in the urine, and in order that we may fully appreciate the progress of the case this test should be a quantitative one.

In selecting urine for examination, it is necessary to procure both an evening and a morning specimen. It frequently occurs that sugar is only present directly after the taking into the body of carbo-hydrate foods. It is owing to the fact that specimens of urine are procured at different times and after different conditions of diet that physicians differ so often in the diagnosis of diabetes. Among the various tests for sugar probably the most accurate is the copper test, in the form of Fehling's solution. The great objection is that this solution will throw down a precipitate on boiling, which is very liable to mask the test. In order to obviate this I have had pellets made of the solid ingredients of this solution, in an anhydrous form, such as can be at any time dissolved in water for use.

When patients come to us we should not ask them, but tell them, what they have been eating or drinking. This can be accurately done by the quantitative test. This is best and most easily accomplished by the decolorization test, which is done in the following way:

At the bottom of a long, graduated pipette is attached a tube running into a flask containing a given quantity of a solution of sulphate of copper, differing from Fehling's solution only in containing ammonia and potash instead of the latter alone (in order to prevent the precipitation of the oxide); at the upper part of the flask is placed an escape-tube. At the rubber tube through which the urine escapes into the flask is placed a compressor controlled by a screw, which regulates perfectly the flow of the urine. After the copper solution is brought to a boiling point, by a flame placed underneath the flask, the urine is allowed to enter the flask, drop by drop, until the copper solution is exactly decolorized. By reading upon the graduated pipette the amount of the urine which has been necessary to decolorize the known quantity of copper solution, we can form a proportion by which an accurate estimate can be made of the contained sugar. By this means we can follow the course of the disease even more accurately than the clinician who, with his stethoscope, watches, from day to day, the progress or retrocession of pulmonary disease.

It is well to note, in passing, that in diabetes we sometimes find albumen in the urine, and this is often present just in proportion as the patient improves or gets worse. A test for albumen, which has no known fallacy, is that with citric acid and the ferrocyanide of sodium. The objections to the nitric-acid test are that it may precipitate either uric acid or the oleoresins. In the above test, if a pellet of citric acid is dissolved in the urine and boiled, we may then get a precipitate of uric acid, but upon the addition of the ferrocyanide of sodium the solution invariably clears up unless albumen be present.

In considering the disease itself, we find it has different grades and intensity. The liver, in health, has not unlimited control in the assimilative power over the carbo-hydrates, and diabetes may be said to exist when that power is below the ordinary. When a person first comes to have diabetes, as we have stated, it is through faulty assimilation; it does occur, however, that, as the disease progresses, the sugar is formed from the tissues themselves, as is proved by its constant presence when the patient is upon a strictly meat diet.

Age influences greatly the occurrence of the disease. Out of 1,360 cases tabulated, forty-five per cent occurred between forty and sixty years of age. Age also affects prognosis; young subjects rarely recover, the disease ordinarily terminating in two years. In old people the prognosis is more favorable, many recovering. One reason, possibly, for the tendency of children to do badly is that they take unsatisfactory care of themselves, while elderly persons are oppositely inclined.

Diabetes sometimes commences in a very mild form, and may exist for a long time unrecognized. How do we know it is not recognized? It is said that boot-blacks in hotels become expert in recognizing diabetics by the white stains on their shoes and clothing caused by stains from their urine.

Then, too, diabetes runs in families in a very marked manner. One of the most striking instances of this was in a family which came under my observation, where the grandmother, the mother, and four out of her five children died of diabetes.

Recently I have found many cases beyond the middle period of life having pain in their limbs, which were formerly called neuralgia; they also have an irregular gait, somewhat ataxic. They sometimes feel as if they wanted to "gather themselves together," so that they may walk without giving their friends the impression that they have been taking too much. Again, they have the peculiar symptoms of pains in their extremities and "throughout the bones," which are much worse when they get warm in bed. This probably is, or analogous to, a peripheral neuritis.

In treating young subjects we must try merely to stay the disease; we can not stop it. We take away the sugar, the patient temporarily improves, and believes himself cured. He is borne up only by false hopes.

In young subjects it seems to have progressive character, not unlike progressive muscular atrophy, or locomotor ataxia.

For elderly patients we can do much. Appropriate diet is absolutely essential. Sweets, pastry, puddings, and bread must be interdicted, while meat, eggs, poultry, butter, and cheese may be taken. In regard to milk, it must be remembered that it contains lactic sugar, and therefore also can not be taken.

In regard to bread, the gluten and almond breads, especially the latter, are preferable. Gluten bread may be considered of a good quality if containing only thirty-three per cent of starch. I have found that many times patients paying a high price for their bread get an inferior quality, containing from sixty per cent to eighty per cent of starch. Almond is far preferable, containing fifty per cent of fatty matter, and only seven per cent or eight per cent of carbo-hydrates. So you see, gentlemen, we must have the proper means with which to carry out our treatment successfully. The medicinal agents, which are opium, morphia, and codeia, whether due to the natural history of the disease I can not tell, but I think they exert a restraining influence over the disease.

If the sugar disappears from the urine, I commence to give my patient two ounces of bread daily; if, after a few weeks or months, I still find no sugar, I give him three ounces of bread, increasing in this manner until I give him six ounces, with which quantity he must remain content.

If the bread causes the sugar to reappear, it must not be taken.

We have seen that if there is sugar in the urine, it must be proportionately so in the general circulation. An excess of sugar in the blood predisposes to disease. The patient is then "ripe for any thing wrong."

I thank you, Mr. President and gentlemen, for your kind attention.

Dr. Herrick, of Cleveland, O., asked whether Dr. Pavy considered the condition of the urine the objective point in the treatment, or did he aim his treatment directly to the abnormal condition in the portal and hepatic circulation.

Dr. Pavy said that he looked upon the lessening of sugar as an evidence that the assimilative power of the carbo-hydrate is improved. The urine is an index of sugar plus the power within.

Dr. Arnold, the president, asked whether Dr. Pavy would corroborate the statement that the Hebrew race are predisposed to diabetes.

Dr. Pavy replied that while they were more predisposed they were also more amenable to treatment.

Dr. Truax, of New York, asked if Dr. Pavy had found that where acetic ether was present that death followed quicker.

Dr. Pavy replied that he was not a believer in acetonemia.

Drs. Miller and Holton also addressed questions to the lecturer.

Dr. J. A. Ouchterlony, of Louisville, Ky., moved that Dr. Pavy be requested to furnish a paper for publication, which was voted unanimously.

Reviews and Bibliography.

A Practical Treatise on Diseases of the Eye. By Dr. EDWARD MEYER, Professor L'Ecole Practique de la Faculte de Medicine de Paris, etc. Translated with the assistance of the author by FREELAND FERGUS, M. B., Ophthalmic Surgeon, Glasgow Royal Infirmary, etc. With two hundred and sixty-seven illustrations and three colored plates. Philadelphia: P. Blakiston, Son & Co. 1887.

This treatise has long been the standard textbook in the French and German universities. The fact that it has passed through three French and four German editions, besides having been translated into Japanese, Spanish, Italian, and now English, is a sufficient guarantee of its value. In the manner of arranging the subject-matter, and its clearness of description, it surpasses any modern text book that we have critically examined. From a careful perusal of the entire work we find but few points where we can offer any thing but hearty approval. The chapter on Glaucoma contains an admirable and clear division of the different stages, and the symptoms leading to a diagnosis. He gives all the leading theories as to its etiology. As some have doubted the efficacy of eserine in relieving glaucoma, the opinion, as expressed by Meyer, is of much interest. He says, "Our treatment is almost exclusively iridectomy. Instillations of eserine and pilocarpine, however, exercise an important influence on the elimination of intra-ocular tension. These alkaloids should be used in the following conditions: (1) When we have reason to fear an onset of glaucoma; (2) when we are obliged to delay operation; (3) when the operation of iridectomy has given an insufficient result; (4) in cases of hemorrhagic glaucoma." He says he has seen this class of cases freed of all tension by regular instillations of pilocarpine.

To the indications given by Meyer, we can add that eserine will maintain a good vision in simple chronic glaucoma for years, even giving better results than iridectomy, which often, by the distortion of the pupil and irregularity of the cornea, produces an astigmatism that can not be corrected by glasses.

A comprehensive study of the development of cataract and the different operations for its relief are given. A thorough consideration of the operation of extraction without iridectomy, as advocated by the French school of ophthalmologists, is given, and he concludes that, whatever objection may be made to extraction with iridectomy, daily experience shows that, far from increasing the dangers, it acts beneficially, either by facilitating the complete expulsion of the lens or by modifying the conditions of the circulation or intra-ocular tension. He gives an interesting *resumé* of the history and evolution of the modern operation, and concludes that each case should be carefully studied, and that method adopted that seems to offer the most favorable chance of securing a perfect result.

Anomalies of refraction and muscular defects are well studied. He refers to the treatment of ocular paralysis by orthopedic methods, as used by Michel and recently emphasized in a paper by Bull. He advises that the eye be anesthetized by cocaine, and a fold of conjunctiva near the corner grasped with fixative forceps and the eye drawn as far as possible, several times in succession, for about two minutes in the direction of the paralyzed muscle. By these manipulations the contraction of the antagonistic muscles is counteracted and atrophy in the diseased one prevented.

The different forms of ocular deviations and the methods of correcting them is well described. We would like to add one procedure to those he advises to increase or diminish the effect of strabismus operations. He gives the following: (1) Amount of dissection of cellular tissue around the muscle to be divided; (2) Suturing of conjunctiva, and fixing direction of the eye after the operation. To these atropin, to increase effect in convergence, and eserine, to increase effect in divulgence, and *vice versa*, have quite a marked effect.

Various methods are named for the correction of distorted lids or lashes. As yet no operation has been devised that is suitable in all cases, and the fact that every one has some method of his own goes far toward proving the assertion that frequently any one method fails in giving perfect relief.

The style of press-work and binding are good, and we expect ere long to see this book one of the most popular text-books on the subject of which it teaches. J. M. R.

Correspondence.

PARIS LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

On the 31st of August the venerable M. Chevreul, the eminent chemist and academician, attained his one hundred and second year, on which occasion he received congratulations from all parts of the world. His general health, notwithstanding his great age, is considered to be good, and his mental faculties sound. It is just sixty-one years since he was elected member of the Academy of Sciences, the meetings of which he has rarely missed. On the afternoon of his last birthday he presided over the meeting of the Agricultural Society of Paris, of which he has been a member for the last forty-six years, and has lately been nominated its perpetual president. He prides himself in being styled *le doyen des etudiants* (senior student). His habits are very simple, and he drinks nothing but claret and water at his meals.

Human longevity is by no means so rare at present as it was some years ago, as several examples have been lately reported in the various periodicals of the day. According to statistics which were lately published in English journals, there exist at the present time 52 centenarians in the United Kingdom. Of this number there are 36 women, 2 of whom are single, and 18 men, of whom 2 are bachelors. These centenarians are said to retire on an average at 9 o'clock in the evening and rise at 8 in the morning. Some of them smoke a great deal, among whom are two women. The *Revue d'Anthropologie* has published the following information respecting the centenarians who died in this country during five years, that is, from 1879 to 1883: In 1879, 38 centenarians died; in 1880, 31; in 1881, 38; in 1882, 44; in 1883, 54, thus giving an average of 41 centenarians per year.

People appear to live long in Paris, and this does not seem to depend on any particular habit or social condition in life, for it is not an uncommon thing to meet with Parisians over eighty, and among them there are persons in easy circumstances enjoying the luxuries of life, others are temperate in their habits, while one finds also those who are poor and intemperate. The writer of this letter knows of a man who has been a *chiffonnier* (rag-gatherer) nearly all his life, and seldom goes to bed sober. His work is chiefly nocturnal, and when finished he finds no other resting place than a small, miserable room, and in such an unsanitary condition that it is a wonder how any human being can live in it; yet this man has attained the age of ninety, and still follows his occupation through all weather. He bears the sobriquet of *le doyen des chiffonniers.*

Dr. Burggraëve, ex-professor of the University of Ghent, and the reputed discoverer of the dosimetric method of therapeutics, and who has his headquarters in Paris, has just published a work on human longevity in which he indicates the means by which a human being may live beyond a hundred years. It consists simply in the "rational employment" of common salt, which, according to this author, is the preservative against all diseases. Hence he suggests that there should be no duty on this precious substance, which should be placed at the free disposal of every body, as are water and air. Dr. Burggraëve affirms that to be in good health is not, as is commonly supposed, an affair of chance. The laws which regulate life are, according to him, calm and regular phenomena; it is sufficient to watch that they are developed without obstacle. Salt, according to his theory, is the great regulating agent, adding that if the blood is too "rich," salt will render it less charged; if it is "poor," salt will reconstitute it, and will restore to it the necessary elements. The craving for salt is instinctive in man as well as in animals, and Dr. Burggraëve, in support of the property which he attributes to salt, cites many examples. Thus the punishment, the most severe which formerly existed in Holland for soldiers, was to give them bread without salt. When this diet lasted some months it was rare that the prisoners survived. About the end of the last century a terrible epidemic bearing some analogy to scurvy broke out in Saxony. It made such rapid progress among the poorer classes that the government ordered an inquiry into the nature and course of the epidemic. The result was the establishment of a singular fact, viz., that miners, although reduced to the same misery as the other workmen, remained, with their families, completely exempt from the malady. The diet of the miners differed from that of the other workmen in only one point, that is, as the miners were employed by the State they were supplied with salt gratuitously. The deduction was that the absence of salt in the diet of the other workmen was the cause of the malady. Salt was then prescribed as a curative measure, and the epidemic disappeared as if by enchantment. For phthisis, Dr. Burggraëve assures us that salt is a sovereign remedy, and so it is for cholera, and during an epidemic of the latter he would recommend the persistent use of salt as a preventive. In fine, Dr. Burggraëve finds in it a panacea for all diseases. Only, he says, it is so simple a remedy that no one thinks of employing it; nevertheless he asserts that salt, in preventing maladies, insures longevity to a certainty. The dose necessary in ordinary times is twenty grams per day. In disease the physician must use his judgment and measure the dose according to circumstances. This remedy, as is seen, is not only simple but inexpensive, and one by which health may be secured at a cheap rate. I must say, however, that Dr. Burggraëve employs other means to prolong his life. He confided to me himself that he took every night on going to bed, as a prophylactic measure, one dosimetric granule of digitaline and one granule of arseniate of strychnine, one milligram of each, which he repeats once or twice more in the twenty-four hours, according to how he feels. Besides these granules he takes every morning a small dose of granulated sulphate of soda, by which means the bowels are kept free and the blood relieved of its acridity. By the daily ingestion of the granules above mentioned the vital force of the organism is duly kept up. Dr. Burggraëve is now over eighty years of age, and still looks strong and hale. He enjoys a good table and makes use of the best of wines.

Pranzini, the man who was lately convicted of the murder of three persons (two women and a young girl), and condemned to death, was guillotined last week. The execution took place about 5 o'clock in the morning, immediately after which the body, with the severed head, was put into a coffin and taken to the cemetery to pass through the form of burial, which occupied only a few minutes. It was then removed to the School of Medicine, where it arrived at 6 o'clock, and was immediately submitted to a *post-mortem*. This took place under the direction of Prof. Brouardel, the Dean of the Faculty. The body was found to be still warm, and what struck the operators was the extraordinary development of the muscles of the arms and legs of the defunct, and the smallness of his wrists and ankle-joints. All the organs of the body were found to be healthy. On opening the head, which had been sent to the laboratory of the Anthropological Society, where the measurements and model were taken, the brain was found to weigh 1,280 grams, or about 150 grams less than the average.

Dr. Brouardel observed that Pranzini approached in many points the Levantine race, which is somewhat of a mixture of the negro race. He had a thick neck, thick lips, and open nostrils. The facial angle offered none of the characteristics often found in assassins. The brain, like the other organs, was healthy. There was not a single adhesion of the cerebral membranes to be found, consequently nothing which could attenuate the responsibility of Pranzini. The heart weighed 270 grams only; the liver, 1,400 grams, both being below the normal. As in the case of other individuals who were executed, various experiments were tried with the head of Pranzini, the principal object being to ascertain whether any degree of consciousness remained after the head was severed from the body, but no satisfactory conclusion has ever been arrived at.

PARIS, Sept. 9, 1887.

Translations.

TWO OBSERVATIONS ON THE SECONDARY EFFECT OF ANTIPYRINE.*—(Paul Guttmann).

1. A cooper, twenty-one years old, with acute articular rheumatism, who had already borne two daily doses of antipyrine, each two grams, very well, complained on the 21st of February, a few minutes after he had taken one gram, of decided feeling of heat, dyspnea, and violent palpitation of the heart. The face was cyanotic, the frequency of the respiration and pulse considerably increased. Stimulants and ice over the heart were applied. After a half hour the symptoms gradually abated. On the occasion of a relapse, somewhat later, the patient bore the antipyrine again very well.

2. A delicate girl, twenty-five years old, took one gram of antipyrine for nervous headache on April 1st. After five minutes febrile sensations and a burning feeling in the whole body ensued. An urticaria eruption appeared on the face, but vanished in a few minutes. There was violent palpitation of the heart, with general excitement and momentary amaurosis. An hour later the face was still much swollen, the arms and hands slightly edematous. The symptoms continued for several hours together, with vomiting and a pulse of near 130. The urine, bright, yellow, and clear, contained traces of albumen as well as five per cent of sugar. Not until the third day did the frequency of the pulse decline and the swelling disappear. On the 4th of April the patient felt again quite well, except for general weakness.

Guttmann is of opinion that idiosyncrasies of this kind toward antipyrine must be exceedingly rare, as the two cases related are the only ones which he has seen; and that his experience is large is evidenced by the fact that since the beginning of the year 1884 14,500 grams of antipyrine have been consumed in the hospital under his charge.

To the preceding we add the case of antipyrine inducing the opposite from its usual effects, which has been lately reported in detail by Dr. Bernoulli in Switzerland, and which is similar to that described by Laache: The patient, a woman, suffered with subacute articular rheumatism, unattended by fever. At first she bore the medicine well, but later, after small doses, the fever rose rapidly and was accompanied by chills, vomiting, pains in the breast and abdomen, turgescence of the face, injection of the conjunctiva, and the eruption of a general exanthem similar to scarlatina. Toward salicylic acid, too, the patient reacted violently, while anti-febrin and salol were taken well. The fact that the threatening symptoms appeared within three or four minutes after taking the medicine indicates that its absorption was exceedingly rapid.

THE EFFECTS OF MYDRIATICS AND MYOTICS ON THE INTRA-OCULAR TENSION, UNDER NORMAL CONDITIONS.—(Dr. Fried. Stocker). The author, under the guidance of Pflüger and Kronecker, undertook some new manumetric experiments of the effects of mydriatics and myotics in rabbits' eyes. The results contradict not only the general principle laid down in the text-books, that the size of the pupil stands in a causative relation to the intra-ocular pressure, but also the statement that atropine increases this pressure, while eserine decreases it. The conclusions reached are as follows:

1. Atropine slowly depresses the intra-ocular tension (about six millimeters in curarized but not narcotized rabbits) under normal conditions.

2. Cocain decreases intra-ocular tension two or three millimeters, but usually a slight elevation precedes the fall.

3. These two mydriatics seem in no way to affect the corneal curvature.

4. Eserine first increases the tension of the normal eye about three millimeters; then a diminution, rather greater than the increase, was about four millimeters.

5. Pilocarpin, besides general bodily excitement, produces, first, great fluctuation in ocular tension; then slowly depresses it.

6. These two myotics cause a shortening of the corneal curvature.

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*Translated by S. G. Dabney, M. D.

[In this connection it may be observed that Hötz in a short article, "The Physiological Effect of Atropine on the Eye," discusses the disputed question whether atropine, besides paralyzing the oculo-motorius, also irritates the sympathetic nerve, and concludes against such irritation. Since an atropinized pupil after instillation of cocain becomes still more widely dilated, and cocain undoubtedly irritates the sympathetic, it is proved that this nerve had not been previously excited by the atropine.]

NUTRITIVE ENEMATA OF PEPTONE AND EGG.—(C. A. Ewald). At the suggestion of the members of the Association for Internal Medicine, at Berlin, Ewald undertook the praiseworthy task of experimenting on the nutritive value of peptone and egg enemata. Referring to the original for an exact description of the mode of conducting the investigations, we reproduce here only the practically important and interesting results. The peptone made by Kemmerich and that of Merck were tried. It was found that peptone is quite unnecessary for absorption by the rectal mucous membrane—this membrane being itself capable of inducing the changes in albumen demanded for its absorption. According to these results, simple egg enemata, if only on account of their low price, are much to be preferred: either a few raw eggs, well emulsioned and thinned with salt water, or a mixture of eggs and red wine with addition of a ten- to twenty-per-cent solution of glucose. The quantity of the enema should not exceed one quarter liter (it is better to make several in one day). First a cleansing injection of one hundred and fifty cubic centimeters of water should be administered; then, after an hour's waiting, the mixture should be brought slowly and with slight pressure as high up as possible into the bowel (with a Nélaton's catheter). In case of great sensitiveness of the rectum, some drops of laudanum should be added to the mixture. The rubber tampons recommended for retention had best be avoided.

A CASE OF CARCINOMA OF THE CERVIX IN A NINTEEN-YEAR-OLD VIRGIN.*—(Dr. C. R. Eckhardt.) Carcinoma of the cervix uteri is very rarely observed before the twentieth year; so far only three cases of this kind have been reported. The author examined a tumor which had been removed by Fränkel with the galvano-cautery snare from the cervix of a virgin nineteen years old. The tumor was nine centimeters long, thirteen centimeters in circumference; its surface, rough and of a dirty grayish-red color, was in part ulcerated, in part covered with bumpy elevations filled with blood. Through it passes the cervical canal with its mucous membrane, pale red, and thrown into numerous folds. The microscopic appearance at first seemed to resemble a spindle-round-celled sarcoma; but closer investigation showed that the cells were not of the spindle variety, but epithelial, which were embedded chiefly in the smooth muscular structure and to a less extent in the greatly infiltrated connective tissue.

The surface was covered with numerous colonies of micro-organisms; the cervical mucous membrane showed marked hyperplasia of its glandular elements; cones of epithelium at places extended up to the muscular layer. The author considers the hypertrophy the primary condition in which a carcinoma proceeding from the proliferated cervical glands developed. Whether, with the hymen intact, a chronic irritation (masturbation?) had caused the hypertrophy, the author does not undertake to decide.

OSTEO-PLASTIC OPERATION FOR SPINA BIFIDA.—(Dr. Julius Dollinger, in Buda-pest). The following operation was performed with good result on a child five years old, the subject of a spina bifida which had grown steadily since birth. The tumor was situated just above the sacrum, measured thirty-six centimeters in circumference, and was very elastic and transparent. Pressure upon it produced no nervous symptoms, but incontinence of the bowels and bladder was present, and at the same time spastic contraction of the calf muscles. Repeated puncturing always caused a disappearance of the paralytic symptoms, but they returned with a renewal of the fluid. Longitudinal incision through the sac revealed a communication with the vertebral canal, a centimeter broad, caused by the non-union of the two halves of the posterior arch of the fifth lumbar vertebra. The sac was removed, the nerves and vessels penetrating its ligatures, the dura sewed up, and this stump detached from the borders of the opening of communication. Then an incision was made around the opening, the muscles bordering it were severed, and the two sides of the arch, chiseled down to three fourths their thickness, were broken, bent together, and united by a stitch in the median line. Tendons, muscles, and skin were then sewed together. The wound healed chiefly by primary union, the nervous phenomena all disappeared, and there was no relapse.

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*Translated by S. G. Dabney, M. D.

PRESSURE ON THE NERVES AS A THERAPEUTIC MEASURE.—This therapeutic measure is very little spoken of in medical literature, but, according to P. H. Ling, the Swedish medical gymnasts have employed it very frequently, especially in constitutional maladies, more rarely in local maladies. In the majority of cases it has been combined with other movements or manipulations of medical gymnastics. The author has obtained happy results in cases where other methods of treatment had been tried in vain.

CASE 1. Trembling of the pronator and supinator muscles of the forearm in a woman twenty years of age.

The arm and hand made about two hundred oscillations per minute. Pressure applied to the radial nerve and the median near the middle of the humerus by means of the fingers, then with a screw tourniquet, which for some days at the first remained for from two to four hours, and toward the end of treatment from eight to ten hours a day. The trembling had completely ceased at the end of eleven days of treatment. The patient was treated in 1884, and at the end of 1886 continued well.

CASE 2. Cramp in the region of the spinal accessory nerve of the right side in a man twenty-one years old. The head was turned to the right with strong traction backward in such a way that the patient was often compelled to fix the head by the help of both hands to prevent paroxysms of suffocation. By exerting by means of the fingers a strong pressure on the nerve at its entrance into the trapezius muscle, the author has always succeeded in quieting the cramps, and often delayed the recurrence of the paroxysms. Later a loop was applied in the form of a figure eight in such a way as to embrace the shoulders and exercise a steady pressure on the nerve. During the year in which the author observed this case, this loop had rendered such good service that the patient could respire freely without having occasion to use the hands. This patient was treated in 1885.

CASE 3. Paresis and atrophy of the right forearm caused by a luxation of the metacarpophalangeal articulation of the right thumb, occurring in 1884. Electrization, massage, and medical gymnastics had been tried as well separately as together without amelioration; but after the author, toward the end of 1886, began to apply pressure to the radial nerve, the cure advanced rapidly. The reaction of degeneration was manifested in this nerve and the muscles it supplies, but after pressure, at the same time rapid and gentle, the author obtained a prompt contraction of the extensors.

Pressure was employed on the greater part of the peripheral nerves as well of the head and trunk as the extremities. Pressure on the celiac axis is regarded by medical gymnasts as playing an important *rôle* in the treatment of maladies of the stomach. In some cases of locomotor ataxia the author obtained a good result by making use of pressure on the nerves. It is matter of special remark that in these cases a grave symptom, namely, difficulty of urination, always disappeared after pressure on the inferior hypogastric. The author hopes that where the effects of pressure on the nerves is well understood it will be found one of the best resources of medical gymnastics—*Nord. Med. Arkiv.*

CREOSOTE IN PHTHISIS. — Sommerbrodt gives the result of his treatment with creosote of about five thousand cases of tuberculosis of the lungs and larnyx, continued over a period of nine years. He gave the drug in gelatine capsules, and believes cases have been cured.—*Canadian Practitioner.*

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. IV. SATURDAY, OCTOBER 1, 1887. No. 7.

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- - - Editors.

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THE VERIFICATION OF MEDICAL DISCOVERIES.

Among the many excellent suggestions contained in the inaugural address of President Davis at the International Congress, none surpassed in value that recommending a standing committee in every society, to which should be referred for critical examination every communication claiming to embody a new discovery in either the science or art of medicine. The great number of medical journals in this country renders it an easy matter for any physician to bring before the profession either his experience or his opinions. It is doing no injustice to the medical profession of America to say that it embraces a larger proportion of men of but moderate learning and defective training in critical methods of investigation than that of any other country in the civilized world. Not that we are not the peers of any in native intellect, but that our term of study is not more than half the length of that of any other country. In Europe not only must every physician be thoroughly trained before he can begin practice, but even then only the select ones, as a rule—those who have hospital facilities or other public positions where large experience is to be gained—contribute to the medical journals. Even then many things are written that time proves to be errors and delusions.

But in this country every man may write, and for the writer this is well. He is rarely, if ever, the worse for it. But with the reader it is far otherwise, if he does not sift what he reads with the most scrutinizing care and with an abundant skepticism. Unfortunately, too many of us jump to conclusions after the experience of a single case, publish and commit ourselves to these hasty conclusions — it may be, mislead others, and disqualify ourselves by our prepossessions from judging aright, when subsequent experience opposes the views thus formed.

When we reflect upon the vast number of wonderful discoveries that have been made in recent times, and not only heralded abroad by the supposed discoverers, but verified by thousands in the most hasty but positive manner, which yet in a short time proved to be erroneous as science or worthless as practice, it is enough to make us stand appalled at the egregiousness of the blunders made and the waste of time which the medical world has been misled into spending. The world would become wise in a tithe of the time that is wasted on error, if the truth alone engaged its attention.

The correction of this evil may come only in the far future, but certainly it would be hastened greatly by such a method as that recommended by the venerable President of the International Congress.

PROTECTION OF RAILWAY PASSENGERS.

Senator Butler, of South Carolina, is reported as having expressed the intention of introducing at the next session of Congress an amendment to the interstate commerce law, making it a penal offense to keep engineers or others in charge of trains more than ten hours out of the twenty-four at work.

Of the many measures that have been suggested having reference to the protection of the lives of railway passengers, few or none are better grounded in reason and experience or calculated to accomplish greater good.

In order to keep men in charge of railway trains in a condition most fit for a careful discharge of their duties, their mental faculties should be kept in the freshest and most vigorous condition attainable. A man who has labored arduously for twenty or thirty hours, who has become physically as well as mentally exhausted, really finds it impossible to care for his own life or the lives of others with that vivid interest that would spur him up to be constantly on the alert against danger. Many an old soldier who has seen hard service knows how, on the long, fatiguing march, patriotism, love of family, and even of life, have so far given way under a condition of exhaustion that he would hardly have gone a step out of the way to save himself from capture or the risk of losing his life.

The engineer, fatigued with long travel, continuous watching, and loss of sleep, almost ceases to feel that his own life is worthy of care, and he has no other standard by which to measure the value of others' lives. Naturally and necessarily he relaxes and invites the danger which is ever at hand.

Not many seasons since an engineer on the Louisville and Nashville Railroad, who, in order to meet certain financial obligations incurred by him, had been making about fifteen hours' time a day for several months, became completely rattled, or "lost his grip," as railway men say, stopped his train, and told his conductor that he was out of water, and this but a short time after the engine had taken water. He was set right in that matter, but had not gone far before he declared he had lost both main pins, and began blowing out the water from the boiler. He was then taken charge of and sent to the asylum, but there declared not insane and sent back home. But the unfortunate man had irrecoverably taxed his nervous system, and before a great while death came to his relief.

This is an extreme but an illustrative case. It is no rare thing for railroad men to have similar experiences, though on a smaller scale. Indeed, the term "loss of grip" has become every where a convenient part of the railroad man's vocabulary for the expression of this condition. And beyond all doubt this temporary "loss of grip," due to overwork on the part of the men having trains in charge, has been the occasion of the "loss of grip" for good and all to many a luckless traveler.

A MEDICAL LIBRARY.

The inauguration of a public medical library in Louisville has been agitated of late, and it is to be hoped that in the near future this most desirable enterprise may be pressed to a happy conclusion.

The task would prove an easy one if the several vigorous medical societies now at work in the city would join in a concerted effort. If the necessary means can be gathered in no other way, instead of the rich suppers with which the members are now regaled at the meetings be changed into a simple breaking of bread, and the amounts thus saved be devoted to the purchase of books.

It is far from being creditable to Louisville that not a single volume in the way of a public library is available for the exclusive use of the members of the medical profession.

While from private libraries enough of knowledge might be obtained for practical purposes, whoever would aspire to a comprehensive and critical mastery of medical science, or the honors of successful authorship, must be supplied with a larger collection and a greater variety of medical literature than any one restricted in means enough to be under the necessity of practicing medicine is likely to be able to accumulate. It is most earnestly to be desired that a speedy and successful movement may be made by the medical profession of the city to establish such a library as shall meet the needs of the most studious and ambitious, and become as well a source of credit and a matter of pride.

CHARACTER IN GAIT.

By several years the earliest Latin sentence we ever learned was the language used by Virgil to describe the pace of Iulius on the retreat of Æneas from Troy, which was taught us by a family physician who had taken kindly interest in our childish curiosity.

"*Parvus Iulius,*" says the poet, "*patrem sequabat non equibus passibus.*" Our kind friend claimed from his school-days to have got much amusement from the fancied spectacle of Iulus taking by turns a long step and a short one.

We, in turn, sought to find entertainment in the same thought; but the more we considered the more we became convinced that an alternate short step and long one must result in carrying the traveler around in a circle.

But now comes Dr. Peracchia (possibly a descendant of Iulius) and tells us (*La Riforma Medica*) that in all good people the right pace is longer than the left. Not only so, but he tells us how to judge of thieves, assassins, and ravishers by the position of their feet in walking.

These discoveries, says the New York Medical Record, are of a very interesting character, and if the criminal could be induced to walk before the honest man, instead of following him, as he usually does, they might also be put to practical use, for then good citizens could diagnose the rogue by his tracks, and thus be enabled to escape robbery, assassination, or rape, as the case might be.

Notes and Queries.

Editors American Practitioner and News:

SEQUELÆ OF SPECIFIC DISEASE AS A CAUSE FOR EDEMA OF THE GLOTTIS VERSUS RED PEPPER.—In the AMERICAN PRACTITIONER AND NEWS for September 3d there is a contribution bearing the title of Abuses of Pepper Teas, by Sam E. Woody, A. M., M. D., Professor of Chemistry and Public Hygiene, Clinical Lecturer on Diseases of Children, in the Kentucky School of Medicine.

The doctor and professor starts out with some deprecatory remarks in regard to a class of physicians who are in the habit of resorting to severe remedies in mild cases, "some affections just severe enough to incapacitate for work," only to "impress the patient," etc. He particularly refers to eye-waters which "make children scream and older persons weep for hours," as well as to "nitrate of silver injections which make the gonorrheal patient stand on tiptoe and curse all creation." But when he strikes red pepper he warms up and stigmatizes it as "most mischievous." I will not question the doctor's experiences in the matter of eye-waters that make persons "weep for hours," or unseemly displays due to the pungency of nitrate of silver injections in gonorrhea. They are not material to a right understanding of Case No. 2, in regard to which I desire to say a word. Under what ethical rule the doctor assumed to report another's case without his permission and without any conference with him is not clear to the writer. But we will pass that for the present and give a short statement of the case, allowing those capable of forming a medical opinion to judge between pepper and the pathological condition existing as to which was most likely to result in the condition which rendered tracheotomy necessary in the case.

CASE —. According to my record, I was called to see Mr. C. on the evening of the 12th April—it may have been the 13th. He was complaining of his throat, for which he was using a solution of chlorate of potass. which he had that day procured at a drug store. He also complained of feeling generally unwell. I gave the patient's throat a very cursory examination, and, finding nothing to excite the slightest uneasiness, I ordered a small dose of calomel with five or six grains of Dover, to be taken at bed-time, and a *weak* pepper tea as a placebo, to be alternated with the chlorate potass. gargle already in use. I then took my leave, saying I would return in the morning. Quite early the following morning I was again summoned to my patient, the messenger informing me that he had grown much worse during the night, and as I could not be reached, Dr. Woody, a close neighbor, had been called in, also Dr. Wm. Cheatham. When I reached the bedside of Mr. C. I found that the operation of tracheotomy had been performed by Dr. Cheatham, which was rendered necessary to save the patient from suffocation depending upon edema of the glottis. I was surprised to find my patient in such a precarious condition, and somewhat at a loss to account for the apparent sudden change for the worse until, inquiring into his history, I learned that he had been the subject of specific disease, for which he had undergone treatment some years previous. As soon as circumstances would permit, an examination of the larynx was made by Dr. Cheatham and myself, when a morbid growth was discovered within that organ. The patient was promptly placed on specific treatment, under which the growth within the larynx rapidly disappeared, and he made a good recovery.

That pepper tea, either weak or strong, had any thing to do with the condition of Mr. C. is simply absurd. The mistake I made, on first visiting my patient, was that I failed to give him the critical examination which after circumstances show the case demanded. Had I done so, I should no doubt have discovered the trouble which progressed to so dangerous a stage during the night following my visit. Cayenne pepper has had a wide range of usefulness with an established reputation since the days of Pliny and the old Romans. It is and always has been in common use all over our country, from Maine to California, especially among our country cousins, not only as a medicinal remedy, but being sometimes used in the form of tea as a beverage. If there was a tithe of the danger in red pepper that some appear to suppose, tracheotomy would take precedence as a surgical operation, at least in numerical importance, over all other operations, and there would be a general throat-cutting throughout the land.

I may add that Dr. Cheatham, who had the case under observation until the patient was thoroughly convalescent, agrees fully with me as to the cause of the edema in Mr. C.'s case. I append a letter from Dr. C. in reply to one from me:

"In response to your note of September 19th, concerning Mr. C., on whom I performed tracheotomy for edema of the upper part of the larynx, I will state that after the tracheotomy (some days after it) I discovered a growth in the trachea that disappeared rapidly under specific treatment with insufflations of iodol. The patient told me he had had secondary specific trouble." E. RICHARDSON.

LOUISVILLE, September 21st.

EFFECT OF LONG-CONTINUED LACTATION ON THE UTERUS AND OVARIES.—(Dr. Sinclaire in the *Revue Med.*) The conclusions are: (1) Lactation tends to prevent conception by its influence on the ovaries in retarding a return to a state of perfect ovulation. (2) After weaning the evolution of the ovaries becomes more rapid than during lactation. (3) After prolonged lactation a sudden cessation may be followed by a rapid evolution of the uterus and ovaries, giving rise to symptoms of hyperemia of the ovaries and uterus. (4) Prolonged lactation may produce a superinvolution of the uterus and ovaries, causing, where circumstances favor, a partial or complete prolapse of the womb.—*Arch. of Gynecology.*

CORRECTION.—In the article, Reflex Nerve Influence, in our last issue, on page 64, second column, twenty lines from the top, after "vaso-motor nerves" read "to the circular muscular fiibers," and, six lines from the bottom, for "urination" read "circulation."

THE Medical Register, of Philadelphia, with commendable enterprise issued a daily edition during the International Congress, which was of great advantage to members in keeping a run of the proceedings in the various sections.

RICHARD QUAIN, M. D., F. R. C. S., OF LONDON.—The secular papers announce the death of this eminent physician and author, at the age of seventy-one years. His name is especially familiar to all students of anatomy.

W. H. HAWKINS, M.D., a prominent physician of Texarkana, died on the 7th of September. He was a member of Arkansas Medical Association, and American Medical Association.

SPECIAL NOTICES.

WYETH & BROTHER'S COMPRESSED TABLET TRITURATES.—In using any of the more powerful remedies, such as aconite, morphia, arsenic, etc., the tablet triturates of Messrs. Wyeth & Brother will be found a very convenient and satisfactory method of administration, on account of the accuracy of the dose and their ready absorbability, as well as the entire freedom thus afforded from the danger always attending, to a greater or less extent, the dispensing of poisonous drugs in the form of powders, drops, or solutions.—*Gaillard's Medical Journal.*

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. IV. [NEW SERIES.] LOUISVILLE, KY., OCTOBER 15, 1887. No. 8.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

ON THE NATURAL HISTORY OF DISEASE.*

BY JOHN A. OUCHTERLONY, A. M , M. D.

Professor of the Principles and Practice of Medicine and Clinical Medicine, Medical Department University of Louisville.

Deeply impressed with the importance of this study and its practical bearings in giving much needed solidity and permanence to medicine, both as a science and as an art, nevertheless it is with no little timidity that I enter upon the consideration of the subject, for I am most anxious to avoid even the semblance of trying to disparage the science we love and revere, and to the study and practice of which we have devoted our lives. No one can more ardently admire or more sincerely rejoice in the great achievements of modern medicine than I do. But the interest and honor of science are not only advanced by reviewing what has been accomplished, but are perhaps promoted in even a higher degree by bringing out in bold relief whatever may be defective, and the means most likely to overcome it.

It seems to me that nothing could be more conducive to this end than a careful, systematic study of the natural history of diseases. This would include not only a study of their etiology and their nature, but also their mode of development, course, and termination when left entirely undisturbed by the interference of art. The subject is one of great difficulty, not only on account of its vast scope, but also because of the often complex character of disease, and most of all by reason of the obstacles of extraneous origin which will inevitably beset the path and obstruct the progress of one engaging in such a course of investigation.

On looking around us, we find in every department of pathology unmistakable evidence of the all-pervading presence of law. According to law, the more or less orderly succession of morbid phenomena, as well as of normal processes, takes places. A knowledge of these laws reveals the natural history of disease, disease pursuing its natural course in the human body, undisturbed by remedial agencies, and following out its tendency to recovery, complete or partial, or to death.

Even a superficial view will satisfy the observer that in practice at the bedside the physician does not generally manifest great trust in nature. His eagerness to relieve pain and restore health tends to make him forget nature's agency in the cure of disease.

But diseases themselves are perfectly natural, though not normal, conditions of the living body, and the same power which called them into being may also not unreasonably be supposed to be in many instances adequate to their removal. The truth is that nature does possess far greater power in curing disease than is admitted by most of us, even in theory, and still greater than our practice would seem to imply.

These words do not arise from a want of appreciation of medical science, nor are they intended to dim the lustre of those brilliant achievements which have, in our day, so wonderfully multiplied the resources and so vastly enhanced the power of medical art. On the contrary, it is because of a profound realization of the tremendous power of medicine to modify disease that the necessity of being able to measure with more exactness the influences of our art seems so imperative to the writer. But at the present time, when organic chemistry, both synthetically and analytically pursued, is so rapidly adding to the number of medicinal agents, and when the experimental study of their physiological action has given so much interest to their application in therapeutics, there certainly appears to be some danger of forgetting the importance of the study of the natural history of disease, which must necessarily be the basis of our estimate of all medication, and without which any thing like a philosophical view of the effects of remedies and their influence in modifying disease is impossible. Indeed, our knowledge of the natural history of disease in general is very limited and often quite unsatisfactory.

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*Read before the Ninth International Medical Congress.

The natural course and termination of disease is frequently ignored. The question is rarely asked, what would have been the course, duration, and final issue of the case if no medication whatever had been resorted to? And we are all prone to regard our treatment as the most potent, if not the only factor, in effecting a favorable result. This error springs not from personal vanity or professional arrogance, but is simply one of the evils flowing from our ignorance of the methods and powers of nature in working out the problems of disease.

Most unfair would it be to discredit medicine because her progress has not been more prodigious in rapidity and extent. Let us reflect for a moment. What we to-day understand by the science of pathology is but of recent origin. How many diseases are there of frequent occurrence which at the beginning of this century had no nosological existence! Endocarditis, the whole group of renal lesions included under the generic title of Bright's disease, exophthalmic goitre, trichinosis, myxœdema, a number of parasitic affections, and many others. However, these will suffice for illustration. In regard to some of them, it may be said that considering the inherent difficulties of the inquiry there has not been time enough to round out our investigations into complete knowledge. But even if selection be made of diseases with which the profession has been acquainted from time immemorial, it will be found that their natural history is but imperfectly known. Pulmonary phthisis was long regarded as a pathological unit, and its anatomical and clinical varieties were unknown. It is little more than five years since Koch's great discovery of the bacillus tuberculosis was given to the world, and to-day its agency in the production of phthisis is not generally recognized.

The state of knowledge with regard to cholera presents a strong analogy to that of tuberculosis. Croupous pneumonia (the very name was coined less than thirty years ago) was, until a comparatively recent date, universally regarded as a local inflammation due to local irritation, and the accompanying febrile disturbance was believed to be secondary and symptomatic. The later view, that it is a specific fever, has been confirmed by the discovery of the pneumo-coccus. Its infectious character has been ably advocated and supported by ample and convincing clinical testimony. Yet on the floor of this very section we have heard these discoveries ridiculed and denied by some, while they received a half-hearted and qualified support from others.

In the therapeutics of this form of pneumonia such wide differences exist that they must be supposed to rest on opposite and conflicting views of the nature of the disease.

The cause of such multiplicity and divergence of scientific opinion is to be sought in our neglect of the study and consequent ignorance of the natural history of disease.

No candid and impartial person will deny that more energy and zeal in the prosecution of this interesting and important study are imperatively demanded at this time, especially when one reflects that, in spite of the wonderful development of various other departments of medical science in our day, on the subject of the natural course and tendencies of disease the advance has been so slight that in many respects we find our knowledge here not far above that possessed by the profession half a century ago.

The only certain and safe escape from this labyrinth of ignorance, error, difficulty and doubt, is through the study of the natural history of disease. For by this means alone can the practice of medicine be placed on a solid, firm, and enduring foundation. This work can be carried on satisfactorily only by the co-operation of large numbers of medical men all over the world directing their attention to the various morbid conditions which affect the human race. It must consist in protecting the sick from all extraneous sources of irritation and depression which might disturb the natural course of the disease; but in all other respects the patient must be left entirely to nature without any interference of art. When such observations shall be carried on until a sufficiently vast and varied amount of material will have accumulated, then will be the dawn of a new era in our science, the brilliancy of which shall dim the lustre of all that has gone before.

These observations must include patients affected with various diseases as modified by age, sex, occupation, etc., the duration of the malady, the events marking its course, and, lastly, the mortality and mode of death.

We will be then in a position to judge with positiveness the value of any drug in shortening disease, preventing complications, or averting a fatal result.

Many obstacles stand in the way of executing such a plan. To some it will appear culpable and cruel to withhold from any human being the assistance of our art and consign him to the exclusive care of nature. Others will be actuated by the dread of censure which might be incurred by such a course, and still another class, who are possessed with the idea of the exclusive power of art in the cure of disease, will regard it as dangerous to trust to nature alone the chances of recovery.

The immense benefit to humanity and to science certain to accrue from a sufficiently extended series of observations of the kind, and in the direction I have suggested, should of itself be an incitement to us to undertake the work.

But other arguments which will completely answer the objections that may be raised against it are readily found:

1. While we do not hesitate to subject the sick in our public hospitals to treatment with medicines, the action of which is imperfectly known or entirely unknown, and while we consider such a course legitimate, it must be admitted that to withhold all medication in the same class of cases, and simply watch the operations of nature with the view of accumulating facts, and thereby accomplishing more certain good, is even more legitimate and humane.

2. It must not be overlooked that nature, having inflicted disease, is also in many instances adequate to the cure. This is not only true of comparatively light ailments, but also of severe and in their nature grave diseases, such as malignant fevers, tuberculosis, and cancer. Spontaneous recovery in the worst cases of fever, which appeared absolutely hopeless, has so often been observed that its possibility must be beyond dispute. The possibility of spontaneous recovery in tuberculosis has been attested by such an array of well authenticated cases that it is now no longer open to doubt. But it is when the patient has simply been provided with good hygienic surroundings that this happy result has been most frequently observed. Hence the steadily increasing favor with which the profession regards the climatic treatment of this formidable enemy of our race.

The annals of medical literature furnish illustrations of the spontaneous cure of external cancerous affections, and I could summon the personal experience of surgeons of the highest character in further confirmation of its occurrence.

3. The strong tendency to recovery in acute affections is often admitted, and is an impressive admonition to us to reduce medicinal interference to a minimum in many cases, while in many others it constitutes an ample justification for allowing the disease to pursue an undisturbed and natural course, especially when greater certainty and broader knowledge may thereby be promoted.

4. The character of self-limitation which we now know is possessed by many diseases should be a warning to those who entertain exaggerated ideas of the results produced by their medication, and an encouragement to those desiring to study the natural history of disease.

5. Were it not that the *vis medicatrix naturæ* is no imaginary power, but a living reality, it would be impossible to understand how it is that many quite feeble or absolutely iner

medicaments could have obtained so high a reputation in the treatment of various and severe affections. To-day "sage" is known to have no medicinal power, and is barely employed as a condiment, yet the learned Salernian of old wrote of it:

> "Cur moriatur homo,
> Cui salvia crescit in hortis."

How great is the number of drugs which we can remember to have been lauded like the garden sage for imaginary virtues, but after a while sunk like it into well-merited disuse! Yet while in vogue the journals of the day were filled with accounts of their vast powers and remedial effects; yet all the time it was the great silent Mother who wrought the cure.

6. The indisputable fact that recoveries take place from the same diseases under quite opposite plans of treatment allows no other inference than that the recoveries often are due to nature alone.

7. When one recalls to memory how marvelously patients sometimes get well under the rude and pernicious medication inflicted by quacks and other uninstructed persons, one is forced to conclude that nature not only is adequate to remove the original disease, but also to overcome the artificial disease, not seldom superadded by the energetic ignorance of the practitioner.

I hope that the objections which may be urged against a more general movement toward the study of the natural history of disease have been shown to be without sound foundation, while the necessity for it has been duly set forth and the benefits to be derived from it have been made clear and conspicuous.

It only remains to offer a few suggestions for carrying such a course of inquiry into practical effect.

(*a*) I am well aware that all physicians can not, if they would, and should not, if they could, forego medicinal treatment in the management of all the sick under their charge. Far from it. But even in private practice instances will occur where such a course would be both safe and proper, and it is most desirable that intelligent and truth-loving physicians should avail themselves of such opportunities for the good of science and of humanity.

(*b*) The greatest as well as the most favorable field of observation must necessarily be found in our large hospitals, and it is to be hoped that in all such institutions a certain number of patients may continually be set aside in whom the natural history of their respective diseases can be studied with the requisite intelligence and care.

(*c*) The education of medical students should be directed toward repressing the belief in the exclusive action of art in the cure of diseases, and rendering more prominent the utility of studying their natural history.

Some additional facts might properly be exacted in evidence of my own labors in this direction. But this paper has already attained the fullest proportion admissible, and I can but say in conclusion that I hope in the near future to publish whatever shall have been accomplished in my own peculiar field of labor. Observations such as these, carried on by a single individual, accumulate slowly unless the materials for observation be exceptionally abundant and the opportunities for investigation be particularly favorable. In the mean time it must be conceded, and I congratulate myself upon the fact, that the present occasion is most auspicious for interesting a large number of medical men in a course of investigation which can not fail to yield important results in proportion as these investigations are accurate and extensive.

LOUISVILLE.

THE ELIMINATION OF MEDICINES BY THE MAMMARY GLANDS.*

BY JOHN G. CECIL, B. S., M. D.

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The possibility of poisoning and the probability of medicating the nursing child combine to make this subject one of great interest. That various mineral and vegetable principles are eliminated to a limited extent by the mammary glands, there is no doubt, but after diligent research through the literature of the subject, and by inquiry among professional friends, I am surprised to find how indefinite and contradictory is the common stock of information. It is only necessary to call attention to the well-known fact that cow's milk will be rendered unfit for use after the animal feeds on many common herbs and vegetables. Familiar examples of this are rag-weed, iron-weed, smart weed, mushrooms, carrots, and turnips.

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*Read before the Mitchell District Medical Society, French Lick, Ind., July 1, 1887.

Quite commonly there is apprehension concerning the diet and medication of nursing women; much of this is without foundation; some of it demands further consideration. It is a wise provision of Providence, and a fortunate thing for all animals dependent upon the mother's milk for nourishment during the tender periods of life, that the secretion of milk is so rarely affected by deleterious principles.

It is a striking fact that our materia medica, rich as it is, has not furnished us with a single reliable galactogogue, nor have our therapeutists informed us of a single drug that is eliminated solely and wholly by the mammary gland. And when such elimination occurs, as it undoubtedly does, the chemist, by his art, is often unable to give us any reliable data. Experience brings to every physician cases of the failure of milk in women able and willing to nurse, with no assignable cause.

Experience also brings to mind the perplexity of a fruitless search after drug or diet to prevent this calamity. Nature protects those intrusted to its care in a remarkable and eminently satisfactory manner. Many experiments have been made, notably those in New York in 1877, with reference to the possibility of affecting the child *in utero* by the administration of drugs to the mother. Many of the possibilities, either for good or evil, of this question are still unsettled, though the preponderance of evidence seems to favor the negative. So with the child at the breast nature is a jealous guardian. Referring to the question of elimination of drugs by the mamma, much of the evidence, as before stated, is quite at variance. Physiology comes to our aid and makes clear much that is mooted. It should be borne in mind that the mammary glands are organs of secretion and not of elimination or excretion; none of the elements of milk pre-exist in the blood, but first appear in the substance of the glands. "The mammary gland is no filter, through which the serum of the blood, or the solution of salts, or the transformed foods are rendered accessible to the hungry young. The quality and quantity of milk depends upon the development of the gland. Milk is not the product of the action of the cells; it is the transformed cells, the very organ. Thus the nursling is the veriest carnivorous animal. . . . The character of the gland influences the milk much more than the food." (Jacobi.) The more important medicine will be taken up and discussed *seriatim*.

Opium. For reasons not necessary here to state, there is perhaps more to be feared from the narcotic effects of opium than any other single drug. H. C. Wood is authority for the following statement: "Morphia is probably all eliminated by the kidneys." No mention is made of the possibility of its occasional elimination by the mammary gland. Yet the recorded instances of its narcotic effect on nursing children are sufficiently numerous to necessitate a qualification of Dr. Wood's statement. Dr. O. W. Doe, of Boston, reports an interesting case of galactorrhea in the American Journal of Obstetrics, June, 1885, in which the following observation was made: "The patient being restless and nervous, twenty drops of tr. aceti opii, with thirty grains of potas. brom., was given at 10 A. M., but no sleep followed. The baby, on the contrary, could not be roused during the whole day sufficiently to nurse; the pupils were markedly contracted, and the narcotism was so pronounced as to give rise to much anxiety." The condition of galactorrhea is attributed by Gaunt to a relaxation of the tissue of the mammary gland, causing a passive transudation of the plasma of the blood through the epithelial cells lining the acini. Admitting the truth of this, it is more easy to explain the elimination of medicines through this channel, and suggests to us the exercise of great care when dealing with this affection. "An infant, two days old, died soon after taking the mother's breast for the first time. The coroner of Manchester, England, investigated the case, and elicited the fact that the mother was an habitual opium-eater, the amount of the poison swallowed weekly being about an ounce. Dr. Fletcher's testimony went to show that the symptoms with which the infant died were the effects of opium." H. Fehling, in *Archiv für Gynecologie*, xxvii, 3, quotes a case reported by Thornhill, where twenty drops of tr. opium administered to a wet-nurse caused her nursling to sleep for forty-three hours. In Fehling's experiments a solution of hydrochlorate of morphia (1 to 30) was given subcutaneously in doses of 0.008 to 0.01 gm. in a number of cases. In a majority of instances there was no appreciable effect on the child; occasionally it slept a little longer than usual. He concludes the physician, therefore, may, without fear, give to the nursing mother, when necessary, morphia hypodermically in doses of 0.01 gm. to 0.02 gm. Mundé mentions a case reported in *Annales de Gynecologie*, August, 1876, wherein the new-born child of a woman accustomed to the daily use of opium in large quantities, an ounce or more a week, died in a few hours after taking the breast for the first time. Lewald, in a series of investigations reported in *Lyon Medical*, June 20, 1875, arrived at the conclusion that narcotics could not be eliminated by the milk.

T. Lauder Brunton (1885) states that opium administered to the mother may act as a narcotic to the child.

Dr. Wm. Chamberlain reported a case to the New York Obstetrical Society, 1877, of a woman who, throughout gestation, parturition, and lactation, took by the mouth an average of twenty grains of the morphia salt every day. The child did not show appreciable effects.

I am indebted to Dr. Wm. Rodman, of Louisville, for notes of the following very interesting case: "In November, 1882, I was called at 9 A. M. to see Mrs. C.'s child, six weeks old. The condition of the child pointed to opium poisoning. Mother stated that no medicine had been given the child—there had been no occasion for it. The child was large, healthy, and well developed, and was thriving admirably upon its mother's milk. The mother denied having taken opium, but admitted, upon further questioning, that early that morning she had taken a large dose of morphine. According to the statement of her husband she was addicted to the use of morphine, but since her confinement had not taken any until that day. The child presented unmistakable symptoms of opium poisoning, such as the pin-point contraction of pupils, very slow respiration, and stupor, and died in convulsions at 2 A. M. the following day."

Atropia. Wood, in speaking of the elimination of atropia, says: "When atropia is exhibited medically it probably all escapes from the body through the urine; and even after poisonous doses the amount eliminated through other channels must be almost infinitely small." Brunton does not mention atropia in this connection. Fehling, in the article above quoted, gives the result of his experiments as follows: "Atropia in doses from 0.001 gm. ($\frac{1}{66}$ gr.) to 0.005 gm. ($\frac{1}{13}$ gr.) given hypodermically to the mother caused, in the majority of the cases, wide dilatation of the infant's pupils, but this was the sole effect. It is safe, therefore, to give atropine in the usual doses to the mother without fear of unfavorably affecting the nursling." Schling's (in *Journal de Medicine*, February 20, 1887) observations are as follows: "Atropia sulph. in solution, 1–100. Hypodermic injections of $\frac{1}{15}$ to $\frac{1}{20}$ of a grain produced decided maternal impressions. Dilatation of the child's pupils followed, which disappeared in twenty-four hours. It should be employed in very small doses only." The reputation that belladonna enjoys, whether well founded or not, for arresting the secretion of milk, depends solely upon its local application. I have never heard of its internal administration with this end in view. Its well-known action on the salivary glands is admitted, but it is extremely doubtful if the action on the mammary glands is analogous.

Mercury. With the elimination of mercury by the mammæ medication of the infant rather than the danger of poisoning is suggested. For a while much was hoped and expected of this exquisitely delicate way of treating syphilitic children, but of late it appears to have fallen into "innocuous desuetude." According to Wood, "the chief channel of escape seems to be the kidneys, but it is very certain that at least in some cases the drug is freely excreted by the salivary glands as well as by the intestines." The experiments of Fehling on animals "gave at times a positive, and again a negative result. It may only be said that the lengthy administration of mercury to the nursing mother may eventuate in the appearance of the metal in the milk, and the nursling be affected." Sehling noted that "mercury was transmitted to the milk of the nurse in but very small quantities and irregularly; its presence seemed to depend on the quantity of milk reabsorbed; the common idea that one who is taking mercury must not take acids was entirely disproved." Brunton, Lewald, and Personne state that mercury is eliminated by the mammary gland, and that children with inherited syphilis may be treated by administering the medicine to the mother or nurse. On the other hand, Peligot, Chevallier, Henry, Harnier, and O'Kahler did not find it in the milk. Prof. A. Jacobi, to whom I am indebted for much valuable information on this subject (American Journal Obstetrics, July, 1877), from his own clinical observations does not recommend the plan at all, especially since the internal administration and inunction of the drug is so entirely satisfactory. A fair conclusion is that if the syphilitic child derives benefit from the exhibition of mercury to the mother, the benefit is to be accredited not so much to the uncertain presence of the drug in the milk as to its constitutional effect on the mother, enabling her thereby to give a purer and richer milk.

Iodine and its compounds. There is more uniformity of opinion concerning the elimination of iodine and its compounds to the mammary glands than perhaps any other drug. In some measure this may possibly be accounted for by the readiness with which it responds to chemical tests. Brunton, Lewald, Fehling, Sehling, and others agree that when iodide of potassium is administered in from fifteen- to thirty- grain doses to the mother, iodine is uniformly detected in the milk twenty-four hours after ingestion. Dr. H. C. Davis, of Mercer County, Kentucky, stated to me that he had in one case seen marked symptoms of iodism in the babe from exhibition of the drug in large doses to the mother.

Salicylate of Sodium. In the experiments of both Fehling and Sehling with this medicine, it was found in the child's urine in about one hour's time from its administration to the mother, and so continued for about twenty-four hours. When the child was nursed within less than an hour after its administration to the nurse it was not found. The elimination ceased simultaneously in nurse and child.

Chloral. Both the observers last mentioned found the elimination of chloral through the milk very uncertain, but advise waiting for two hours after the administration before nursing the child, particularly if it be feeble or premature.

Lead, Bismuth, Zinc, Antimony, and Arsenic. Both Lewald and Brunton state that these drugs pass readily into the milk. Antimony, according to Prof. A. Jacobi (Amer. Journ. Obstetrics, 1877), requires great caution in its administration, as it passes easily through the mammary glands.

Under the heading "Should Arsenic be Administered to Nursing Women?" there is an interesting editorial in the Journal of the American Medical Association, September 12, 1885. M. Brouardel reported to the Societe de Medicine Lègale, the case of an infant twelve months old that died with symptoms of cholerine. He was called upon to say whether such a child could be poisoned by the milk of its mother, when she had taken a considerable quantity of arsenic. In the case in question the man, who had had some trouble with his wife and mother-in-law, was suspected of having given arsenic to them. Six months after the death of the child its body was exhumed and analyzed and found to contain a considerable proportion of arsenic. M. Gabriel Bouchet, to determine whether arsenic was eliminated by the milk, administered Fowler's solution in doses of gtt. ij to xij to a number of wet-nurses, and found that the milk afterward contained a proportionately large quantity of arsenic.

Lewald states that arsenic was found in the milk after seventeen hours, and persisted in passing through the mammary glands for sixty hours.

Wood says that the principal channel of escape for arsenic is through the kidneys, but it also passes through the skin, alimentary canal, and the salivary and lachrymal glands. Although arsenic appears to reach almost every tissue in the body, I know of no experiments demonstrating its escape through the milk, or of any cases of poisoning thus occasioned.

Hyoscyamus. Standard text-books agree that hyoscyamus is eliminated by the kidneys. Its escape through another channel is made a possibility by the observation of Prof. J. A. Ouchterlony of the following case, through whose kindness I am enabled to report it:

"A lady with deformed pelvis, after a tedious labor, was delivered with forceps. When the child was two weeks old the mother developed a cystitis, for which a prescription containing hyoscyamus was given. Very soon after beginning its administration, the child's pupils were widely dilated and its face flushed. On the day following the symptoms of hyoscyamus poisoning were pronounced, all of which promptly subsided upon withdrawal of the medicine."

Iron. Dr. Mendes de Leon, in his researches upon the supposed effect of iron on the composition of the milk, found that milk always contained a minute quantity, but that he was unable to increase the quantity by administration of any of the preparations. His conclusion was that the child could not be affected directly by giving iron to the mother, but that it was benefited indirectly by improving the general condition of the mother and causing her to secrete a better milk. (Medical Record.)

Purgatives. "The neutral salts as a rule pass into the milk and cause a looseness of the bowels in the child" (Brunton). The purgative principles of rhubarb, senna, scammony, castor oil, sulphur, and probably jalap pass into the milk and act as purgatives to the child.

Volatile Oils. Many of the volatile oils, such as anise, cummin, dill, wormwood, garlic, turpentine, and copaiba are excreted in part by the milk, and impart their flavor to it.

Acids. Fehling makes the following observation: "Three grams (45 grains) of citric acid administered to the mother during four days—none detected in the milk, no effect on child. Same effect from administration of hydrochloric and acetic acids. Inferentially, therefore, nursing women, if in good health, may eat whatever they please without fear of affecting the child." The general belief and teaching, on the contrary, is that acids should be avoided by nursing mothers for fear of producing griping in the child.

Quinine. Landerer, as long ago as 1839, discovered quinine in the milk of nursing women; this observation is corroborated by Chevallier, Lewald, and Henry. Dr. H. C. Davis, of Mercer County, Ky., gave me personal account of two nursing children that had the miliary eruption that occasionally follow the exhibition of quinine, whose mothers were taking that drug for malaria.

CONCLUSIONS.

1. That the practice of medication of the child through its nurse's milk promises very little, and is altogether too uncertain to be relied on.
2. That great caution should be observed in the administration of narcotics to nursing women.
3. That greater care than usual is demanded in the exhibition of drugs during the first few days after parturition, and when for any reason the milk is poor and thin in quality.

LOUISVILLE, 411 West Chestnut St.

SUPPURATION OF THE MIDDLE EAR.*

BY W. CHEATHAM, M. D.

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The so called dry treatment originated lately for the above affection has not in my hands given the satisfaction I had hoped for after hearing its many praises sung. Its failure is attributable to several causes, the chief of which are the imperfect method of cleansing the ear, the inability in a large majority of the cases to get the powder in contact with the suppurating surface, and the irritation which results from the frequent introduction of the cotton mop.

The method of treatment that has given me the best results in otitis media suppurative is the following. And let me here remark that I do not refer to those cases with such complications as bone necrosis and mastoid-cell disease. If I find granulations of any size, or polypi, I soon get rid of them by Merck's crystalline chromic acid melted on a probe and applied thoroughly. Two or three such applications will remove the largest aural polypi. During this treatment I keep the ear clean with peroxide of hydrogen, twelve per cent, and a saline wash by means of the fountain syringe, the parts being well dried with alcohol as strong as can be borne. All excess of chromic acid I remove with a saturated solution of soda bicarbonate. Having gotten rid of all granulations, the following instructions are given for home treatment—of course all constitutional dyscrasiæ are corrected, if possible. Any throat complication is attended to.

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*From Annales des Maladies de l'oreille, du larynx, du nez et du pharynx, Paris, France.

To my understanding there is but one method of cleansing the ear thoroughly. I know the objections a majority of aurists urge against the syringe, yet I recognize in it the one and only method for the thorough cleansing of the ear, and am sure all objections can be answered if it is used as directed.

For home use I prefer the fountain syringe. The tip I use is a small one, like the glass of a straight eye-dropper. The syringe is filled with a warm solution of bicarbonate of soda and water. Specific instructions are given as to how to syringe the ear: the auricle is to be pulled well up and back, the syringe is used for a few moments, and the ear wiped out with the surgical cotton. The head is now held to one side, and ten drops of a twelve-per-cent solution of peroxide hydrogen dropped in, the auricle being worked up and back to allow the medicine to go in deeply; in a few moments the ear is again syringed, and again wiped dry. Boracic acid or iodol, two drams, or one dram of each in one ounce of alcohol, thirty per cent, forty per cent, fifty per cent, or sixty per cent, or as strong as can be borne, is ordered, with directions as follows: The cleansing method just given is to be carried out one, two, or three times a day as indicated; immediately after the cleansing the head is held to one side, the above mixture well shaken, and the auditory canal filled as with the peroxide of hydrogen; the head is held to one side until the alcohol has about evaporated, then the canal can be packed with the boracic acid or iodol, or whatever is preferred.

Two or three times a week the patient reports to me at my office, when I add to the above treatment applications to the throat and nose if needed, and inflation with the catheter, and Politzer's or Gruber's method. I do this before the ear is syringed the second time, so as to remove all secretions.

In review, then, what advantages can be claimed for this method of treatment? As claimed before, the syringe is the best means of cleansing the ear; this, with the peroxide of hydrogen, and the alcohol to remove any remaining water, answers all indications thoroughly. The alcohol answers three important purposes: it is antiseptic; it removes all excess of water; it carries the medication, whatever it be, to the smallest and most remote recesses.

The chromic acid reduces all granulations very rapidly and without pain. Of course this treatment will not relieve all cases. In some which are apparently very simple I find the old treatment with solutions of sulpho-carbolate of zinc and argentum nitrate gives better results. But in a great majority of cases of otitis media suppurative the line of treatment marked out above has given in my hands most excellent results, and such as are yielded by no other.

LOUISVILLE.

OVARIOTOMY—TWO CASES.*

BY W. O. ROBERTS, M. D.

Professor of the Principles and Practice of Surgery in the University of Louisville.

Mrs. G., aged thirty-two years, the mother of four children, the last being now four years old, in December, 1886, observed some abdominal fullness, which slowly increased in size. Ascribing it to pregnancy, though her menses continued, she gave it no special thought until some time in August, when she consulted her physician, my colleague, Prof. Palmer, who, recognizing the nature of the case, kindly referred it to me. I saw her for the first time September 10, 1887. The abdomen was something enormous; its walls and the lower limbs were greatly distended by edema. The patient had been unable to lie down for months. She got her sleep in a chair. Her general health, however, had remained fairly good; pulse 80, appetite, bowels, etc., natural. I advised immediate removal of the tumor; but, owing to circumstances, this was not attempted until the 20th of September. During the days that elapsed the edema manifestly increased and now reached to her neck, shoulders, and face. The pulse rose to 100, and lost in volume. The breathing was short and difficult. She had an annoying cough. The urine, though voided often, was scant and loaded with albumen. It contained, however, no renal derivatives. The operation was done at the Norton Infirmary in the afternoon of the 20th. I had the assistance of Drs. Yandell, Palmer, Rodman, and Pearce.

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*An abstract of a report read at the October, 1887, meeting of the Louisville Surgical Society.

On making the small incision, the abdominal walls were found so enormously thickened by edema, the tumor of such size and so largely solid, and its adhesions in front so considerable, that I extended the incision upward two inches above the umbilicus. The tumor was adherent both to the anterior and lateral walls of the abdomen, to the omentum and to a portion of the small intestines, but the adhesions were slight and readily broken up. The fluid contents being evacuated by a trocar and canula, the pedicle was found so broad as to necessitate its being ligated in sections. After removing the tumor, the peritoneal cavity was at once flooded with hot water in order to wash out clots and stop bleeding. No open vessels were seen, but as there was a very copious oozing of bloody serum from the parietal peritoneum a glass drainage-tube was passed well down through the lower angle of the wound, and the incision closed by interrupted sutures of silk. The usual antiseptic wraps being applied, and the external end of the drainage-tube properly protected, the patient got one fourth grain morphia hypodermically. The temperature at this time was 100° F., and exceeded this but once; then reaching 100.2° The pulse stood at 100 until the following morning, when it reached 136, and remained between that and 126 until the end of the fourth day, when it fell to 110. It then gradually declined until the ninth day, when it fell to 96. For the first few days the quantity of urine voided in the twenty-four hours varied from two to four quarts. On the second day the patient's face became very edematous. This condition lasted four days. The edema of her legs began to subside immediately after the operation, and at the end of the seventh day had entirely disappeared.

Up to the sixth day there was no desire whatever for food, and little or no thirst. On the seventh day she was given a little tea and toast, from which time she took light diet until now, when she takes the diet of the house. There has never been the slightest nausea. One eighth grain morphine was given hypodermically at bed-time each night for the first week to allay the cough. The drainage-tube was emptied by means of a syringe every hour during the first four days; after that, not quite so frequently until the seventh day, when the fluid drawn off being clear the tube was removed. The sutures were also removed on the seventh day, when the wound was found united throughout. At two suture points small mural abscesses formed. The tumor and its contents immediately after the operation weighed sixty four and one half pounds.

A year before I removed, at the same institution, an ovarian tumor from a patient referred to me by Prof. Ouchterlony which weighed sixty pounds. The patient was forty-eight years old, married, and the mother of children. Here the adhesions were much more numerous and firmer, necessitating the use of many ligatures. The drainage-tube in this case was removed on the fourth day. This patient made an uninterrupted recovery, the temperature reaching 100° F. only on the second day; but the pulse, as in the present case, ranged high, between 120 and 130 for the first week. Since the operation her health has been excellent.

In the present case the edema of the abdominal walls and lower limbs was more marked than I had ever seen before. The total absence of appetite and thirst could be easily accounted for by the fact that absorption of this serum was sufficient to supply the wants of the patient. The total amount of fluid drawn through the drainage-tube was forty-two ounces, one to four drams being drawn at a time.

LOUISVILLE.

Societies.

NINTH INTERNATIONAL MEDICAL CONGRESS.*

Held in Washington, D. C., September 5, 6, 7, 8, 9, and 10, 1887.

SECTION IN SURGERY.—FRIDAY, SEPTEMBER 9TH—FIFTH DAY, MORNING SESSION.

Dr. George Assaky, of Bucharest, Roumania, read a paper on

IODOL IN SURGERY.

The conclusions arrived at were:

1. Wounds unite under iodol by first intention. This union, however, being the result of various and complex conditions attending operation, it is not possible to attribute to iodol alone the absence of suppuration and inflammatory conditions. In wounds which gape and suppurate iodol is an excellent antiseptic. It rapidly retards suppuration, renders it inodorous, reduces the frequency of dressing, and hastens considerably cicatrization. In ulcerating or gangrenous wounds iodol aids to resist the destructive process, and changes the wound, after a variable time, to a healthy, granulating condition. This action of iodol extends itself to hard chancres. In case of soft chancres the result is variable. Sometimes it transforms them into a simple wound with brief delay; at others it is insufficient for this purpose, and it becomes necessary to employ in addition, locally, antiseptic lotions. The same is true with reference to open venereal bubos of the groin. The powdered iodol has this advantage over iodoform, that it is free from odor and is not toxic in its effects.

2. Doses of iodol of from 40 centigrams to 2.0 grams, daily, produce no functional trouble, even if continued a long time.

These doses give marvelous results in tertiary syphilis and in scrofulous affections. In the secondary stage of syphilis, taken internally, it rapidly destroys the syphilitic manifestations. Iodol seems to aid the general nutrition and increase strength and flesh. It is indicated in all cases of specific malnutrition.

Iodol is an antipyretic. In acute infectious diseases, such as erysipelas, etc., it causes a rapid fall of temperature.

Dr. Milton J. Roberts, of New York, read a paper on

A NEW METHOD OF OPERATING ON BONE BY MEANS OF THE ELECTRIC OSTEOTOME.

The speaker presented an elaborate apparatus for this purpose, of most ingenious mechanism. One member remarked that he feared such a display would make the patients feel rather nervous, if seen by them.

The osteotome consisted proper of a hollow cylindrical handle, protruding from which was the shaft of the instrument, at the end of which was a small wheel with teeth like an ordinary finger-saw; the base of the handle was connected with the electric batteries by means of the covered wires usually used in all electric batteries; anterior to the handle were "cut offs," which could be worked by the fore-finger and thumb, disconnecting the current in an instant, and checking the revolutions of the saw-wheel just as quickly; according to the diameter of the bone, different-sized saws were adjusted. In connection with this was a set of drills for drilling into any part of a diseased bone and removing the sequestrum or dead tissues in the bony cavity, the cavity being illuminated by a small electric light thrust in at different stages of the operation in order to secure removal of all carious bone. The femur was exhibited, the head of which had been drilled in this manner, the drill-opening into the bone being three eighths of an inch in diameter, while the entire inside portion had been removed by the drill.

The question was raised as to the cost of such an apparatus being beyond or more than the surgeon would care to invest unless making a specialty of such diseases, and one gentleman affirmed that he could perform all the work which this instrument did with the regular dental drill, and that he had done it on several occasions, borrowing the drill from a neighboring dentist.

Dr. Close, of Illinois, thought the chief advantage of the apparatus was that the operator does not necessarily require skilled assistance, as the current was controlled by the hand in which the instrument was held, while the left hand was at liberty. He had been in the habit of using at times the Band wheel-engine for such purposes, but found it too slow; in order to cut bone the saw must revolve quickly in such an apparatus.

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*From advanced slips supplied by the New York Medical Record from its special report.

Dr. Roberts, in conclusion, said that he had tried the dental engine many times and found the revolutions too slow, and it was for that reason he had set to work in order to secure the best possible method of removing bone in such cases. When the wheel revolves slowly the bone-tissue is torn. Had it been satisfactory, he would not have spent the time and money in bringing forward a new instrument. In operating, the periosteum is not lifted or removed, but cut through with the bone. The speaker also exhibited some instruments for measurement which would record the exact size of the bone to be removed in cases of deformities, etc.

Dr. George E. Post, of Beirût, Syria, read a paper on

CALCULUS IN SYRIA.

The writer remarked that it would almost seem to be produced from climatic causes, as it was such a prevalent malady there. In Palestine and almost every village these cases are extremely numerous both in young and old. In one day four patients came to him from a single village. When an operation is performed the stone is generally found to be larger than is found in European countries, owing to the natives being extremely averse to all surgical operations, and hence procrastinate. A Moslem dislikes an operation extremely. Then, again, there are not many good surgeons there, and they frequently hesitate to perform an operation for stone. Besides, too, the people are ignorant and poor. In that region there is a class of men called "stone-cutters," who make it their business to travel and remove stone from the bladder. They carry a bag containing the stones they have removed and also those bequeathed to them by their ancestors, if in that calling. Their method of operation is as follows: The patient is laid on his back without the use of anesthetics, and held by assistants; the stone-cutter inserts two fingers into the rectum and feels for the stone in the bladder; when felt it is pushed toward the neck of the bladder, and then, with the aid of a razor or borrowed scalpel, he cuts down upon the stone through the perineum, and, when reached, the stone is pushed out by the fingers in the rectum.

The writer quoted one of his cases, in which five stones were removed, two from the bladder and three from the perineal tissue. Another case was more curious than that. The patient had been operated on in infancy by the method described, and a fistulous opening still existed. In that country they are in the habit of eating grapes with skin, seed, and pulp. The fistulous opening connecting the rectum with the urethra had secreted grape seeds, these forming the nucleus for the stone formation. There were sixty-four stones removed from the fistulous tract and bladder, ranging from the size of a grape seed to a nut. A portion of one stone was imbedded in the prostate, and with a short neck the larger portion was embedded in the bladder.

Another case of the same character, but much larger in size, weighing six ounces, in which a portion of the stone was in bladder and prostate, was removed, and not the slightest disturbance of the system ensued, although the stone was of such large size. In another instance the speaker removed a stone weighing twelve ounces. It was four inches long and two inches wide.

The largest number of calculi he had ever removed from one patient was two hundred of various sizes, but eleven of them weighed six ounces each. The patient died from double pneumonia three days after. The speaker stated that he had operated in 250 cases of stone in the bladder. The mortality was 10 in 176 cases; 106 of the cases (250) were in children ten years of age and under. He had performed 44 lithotrities, 8 of which died. One patient, a man seventy years of age, came under the writer's care, from whom he removed three stones from the urethra—one from the membranous portion; one, three inches, from the meatus; and one from just inside the meatus. The largest was the size of a bean. Going from extreme age comes that of a child not quite two years of age, from whom the writer had removed a stone the size of a bean.

Dr. J. A. S. Grant (Bey), of Egypt, remarked that calculus is very common there also; a friend of his, Dr. Zacharol, had made careful and scientific examinations of the various calculi, and almost invariably found the nucleus to be the egg of Bilharzia hematobia, and which, he suggests, would account for the stone.

A patient came to the speaker's office one morning with his scrotum extremely inflamed, and about the size of a child's head. The man, a native, while sitting near the railroad track had been struck on the scrotum by a bottle thrown from the hands of a soldier in a train that was passing; the blow had laid open the scrotum. The speaker removed the stone, which weighed fourteen ounces. This was the largest he had ever removed, and this was taken away in three pieces.

Dr. R. T. Morris, of New York, asked which species of Bilharzia was found, and also in how many cases the blood-worms were found?

Dr. Grant replied, first, Bilharzia hematobia was in almost every case as examined by Dr. Zacharol.

Dr. Post remarked he hardly thought Bilharzia could be a cause, as, while Bilharzia was very rare in Syria, calculi were very common.

Dr. Oscar J. Coscary, of Baltimore, Md., read a paper on

AN UNCOMMON CASE OF FRACTURE, WITH DISLOCATION OF THE TARSUS AND METATARSUS.

The patient, a male, was run over by a steam-car, the right leg being crushed, compelling amputation, and the left foot cut; and the before-mentioned dislocation occurring as mentioned, reduction was impossible, and the patient died nine hours after the accident. At the autopsy it was found that three of the metatarsal bones were completely luxated, the scaphoid projecting up, presenting the appearance very much of such bone in a case of strong pes equinus, while the posterior portion of the os calcis had been crushed and the astragalus bruised.

Dr. N. Senn, of Milwaukee, Wis., read a paper on

ELASTIC CONSTRICTION OF THE NECK, WITH EXCLUSION OF THE TRACHEA, AS A MEANS OF CONTROLLING HEMORRHAGE IN OPERATIONS ON THE HEAD.

He called attention to the fact that where we desired a bloodless operation there were more blood-vessels than in any other part of the body. He thought, however, this hemorrhage could be overcome by the following method, which he had practiced on dogs, namely, cutting down on the trachea, separating it from the surrounding tissues, and then passing a strong rubber band behind it, the ends passing backward; the vessels of the neck could be constricted by tightly securing the ends of the rubber band, while respiration could be carried on. One dog upon which he had operated retained the bandage for two hours, and is now as well as ever. Another one, where it was retained still longer, it had been put under the table, and afterward, when about to be thrown out, it was noticed the heart pulsated, but respiration had ceased. The band was released and artificial respiration practiced, when the animal speedily recovered.

Dr. Carnochan, of New York, presented a specimen of

DOUBLE DISLOCATION OF THE HIP JOINT.

He remarked that previous to 1820 this condition was unknown, but in 1826 Dupuytren first brought it to the notice of the profession. The speaker stated there were various theories as to the causation of this condition, among which were carelessness of the *accoucheur*, movement of the fetus *in utero*, etc.; the question arises, also, as to whether it is really a dislocation or malformation.

Dr. R. T. Morris, of New York, stated that he did not think that it could be caused by careless handling of the physician, as in the northern part of Germany it was quite common, and they certainly had skilled physicians there; he thought it might be due to arrest of development.

Dr. Post drew attention to the two classes of cases, one of which seemed to be rachitic; but he had seen it occur in healthy infants with a difference in length of limbs. A few weeks since he saw a case in which the head of the bone was in the thyroid foramen; the speaker could only account for it that the child moved *in utero*.

Dr. Link, of Indianapolis, Ind., read a paper on

ALCOHOL AS AN ANESTHETIC.

The speaker had used it in over a hundred cases and never had a fatal result, while the anesthesia was complete. The whisky to be given in two-ounce doses, every two to five minutes, until a pint to one and a half pints had been taken and the patient became stupefied. Then about two drams of chloroform were placed in the cone, and a few respirations would put him to sleep; the operation could then be carried out. The speaker's reasons for using this method was that in cases of shock there is depression; the alcohol increases the heart's action, while the chloroform, which is a depressant, administered as stated, secures the equilibrium of the heart's action.

SECTION IN OBSTETRICS.—FRIDAY, SEPTEMBER 9TH—FIFTH DAY, MORNING SESSION.

The committee appointed to formulate resolutions in regard to

UNIFORMITY IN OBSTETRICAL NOMENCLATURE,

submitted its report, which, after an animated discussion, was unanimously accepted, the only dissentient voice being that of Martin, of Berlin, who was not present, but had left a message stating that he thought the matter should not be settled by an American Congress, but should wait three years and be accepted or not by a congress meeting in the Old World.

REPORT AS ACCEPTED.

A. It is desirable to try to attain to uniformity in obstetrical nomenclature.

B. It is possible to arrive at uniformity of expression in regard to: (1) The Pelvic Diameters; (2) The Diameters of the Fetal Head; (3) The Presentations of the Fetus; (4) The Positions of the Fetus; (5) The Stages of Labor; (6) The Factors of Labor.

C. The following definitions and designations are worthy of general adoption by obstetric teachers and authors:

I. PELVIC BRIM DIAMETERS.—1. Antero-posterio; (1) Between the middle of the sacral promontory and the point in the upper border of the symphysis pubis crossed by the *linea terminalis* = *Diameter Conjugata Vera*, C. V. (2) Between the middle of the promontory of the sacrum and the lower border of the symphysis pubis = *Diameter Conjugata Diagonalis*, C. D.

2. Transverse: Between the most distant points in the right and left ileo-pectineal lines = *Diameter Transversa*, T.

3. First Oblique: Between right sacro-iliac synchondrosis and left pectineal eminence = *Diameter Diagonalis Dextra*, D. D.

4. Second Oblique: Between left sacro-iliac synchondrosis and right pectineal eminence = *Diameter Diagonalis Læva*, D. L.

II. FETAL HEAD DIAMETERS.—1. From the tip of the occipital bone to the center of the lower margin of the chin = *Diameter Occipito-Mentalis*, O. M.

2. From the occipital protuberance to the root of the nose = *Diameter Occipito-Frontalis,* O. F.

3. From the point of union of neck and occiput to the center of the anterior fontanelle = *Diameter sub-Occipito-Bregmatica*, s. O. B.

4. Between the two parietal protuberances= *Diameter Bi-Parietalis*, Bi-P.

5. Between the two lower extremities of the coronal suture = *Diameter Bi-Temporalis, Bi-T.*

III. PRESENTATION OR LIE OF THE FETUS. The *presenting part* is the part which is touched by the finger through the vaginal canal, or which, during labor, is bounded by the girdle of resistance.

The *occiput* is the portion of the head lying behind the posterior fontanelle.

The *sinciput* is the portion of the head lying in front of the *bregma* (for anterior fontanelle).

The *vertex* is the portion of the head lying between the fontanelles and extending laterally to the parietal protuberances.

Three groups of presentations are to be recognized, two of which have the long axis of the fetus in correspondence with the long axis of the uterus, while in the third the long axis of the fetus is more oblique or transverse to the uterine axis.

1. Longitudinal: (1) Cephalic, including vertex and its modifications; (2) pelvic, including breech; feet.

2. Transverse or trunk, including shoulder, or arm, and other rarer presentations.

IV. POSITIONS OF THE FETUS.—The positions of the fetus are best named topographically, according as the denominator looks—first, to the left or the right side, and second, anteriorly or posteriorly. When initial letters are employed it is desirable to use the initials of the Latin words.

In the case of Vertex positions we have:

Left Occipito-Anterior = *Occipito-Læva-Anterior*, O. L. A.

Left Occipito-Posterior = *Occipito-Læva-Posterior*, O. L. P.

Right Occipito-Posterior = *Occipito-Dextra-Posterior*, O. D. P.

Right Occipito-Anterior = *Occipito-Dextra-Anterior*, O. D. A.

The Face positions are:

Right Mento-Posterior = *Mento-Dextra-Posterior*, M. D. P.

Right Mento-Anterior = *Mento-Dextra-Anterior*, M. D. A.

Left Mento-Anterior = *Mento-Læva-Anterior*, M. L. A.

Left Mento-Posterior = *Mento-Læva-Posterior*, M. L. P.

The Pelvic positions are:

Left Sacro-Anterior = *Sacro-Læva-Anterior*, S. L. A.

Left Sacro Posterior = *Sacro-Læva-Posterior*, S. L. P.

Right Sacro-Posterior = *Sacro-Dextra-Posterior*, S. D. P.

Right Sacro-Anterior = *Sacro-Dextra-Anterior*, S. D. A.

The Shoulder presentations are:

Left (left and right side of the *mother*) Scapula-Anterior = *Scapula-Læva-Anterior*, Sc. L. A.

Left Scapula-Posterior = *Scapula-Læva-Posterior*, Sc. L. P.

Right Scapula-Posterior = *Scapula-Dextra-Posterior*, Sc. D. P.

Right Scapula-Anterior = *Scapula Dextra Anterior*, Sc. D. A.

V. THE STAGES OF LABOR.—Labor is divisible into three stages: (1) First stage—from the commencement of regular pains till complete dilatation of the os externum = *Stage of Effacement and Dilatation.* (2) Second stage—from dilatation os externum till complete extrusion of child = *Stage of Expulsion.* (3) Third stage—from expulsion of child to complete extrusion of placenta and membranes = *Stage of the After-birth.*

VI. THE FACTORS OF LABOR ARE—(1) The Powers. (2) The Passages. (3) The Passengers.

Dr. R. S. Stringer, of Florida, presented a paper on

A RATIONAL METHOD OF RELIEVING ASPHYXIA NEONATORUM,

which, in the absence of the author, was read by title.

SECTION IN THERAPEUTICS.—THURSDAY, SEPTEMBER 8TH—FOURTH DAY.

A paper on

THE CHEMISTRY AND PHARMACOLOGY OF THE NITRITES AND OF NITRO-GLYCERINE,

by George Armstrong Atkinson, M. B., C. M., was presented, and in the absence of the author was read by Dr. Ralph Stockman, of Edinburgh.

The action of the salts of nitrous acid resembles closely those of the acid which is the essential basis of this group of medicinal agents. Nitrous acid is remarkably unstable; in water solution of one three-thousandth it may be used for a day or two for experimentation, but it has no advantage over a solution of nitrite of sodium, which possesses identical effects in so far as an acid can be considered identical with one of its salts. Our knowledge of the action of the nitrite group has been chiefly derived from a study of the effects produced by nitrite of amyl. Since here the base (amyl) has a decided action of its own, it is necessary to select a salt in which the base in its combination possesses no well marked physiological activity. The resemblance between the action of sodium nitrite and amyl nitrite has been pointed out by Gamgee, Lauder Brunton, Hay, Leech, and others. Barth described its highly poisonous qualities. Binz showed that it caused death from general paralysis, especially of the muscular system, no convulsions preceding the fatal issue. Reichert considered it identical in its toxic effects with potassium nitrite. Its effects may be summed up as a paralyzer of muscular tissue, non striated muscle being affected less quickly than striated. The brain centers are also affected. The blood becomes of a chocolate color in mammals (methemoglobin), respirations are slowed, temperature slightly lowered. Death occurs in frogs from cessation of respiration; after the heart has stopped its movements, it is found in full diastole and quite inexcitable.

Post-mortem rigidity comes on early. In rabbits, three grains were a fatal dose in one three pounds in weight. The same appearances were found *post-mortem*. In man, small doses (eight grains) produced great tendency to faintness and considerable acceleration of pulse, and decided lowering of arterial tension. Paralysis of respiration is due to the effect of the nitrite on the muscular system chiefly, but also in part to the effect on the medullary center. Small doses slightly increase the flow of urine; large always diminish it. Urea and uric acid are almost unaffected. Sugar appears in the urine of rabbits after some hours, if the animal be kept very decidedly under the influence of the drug; but rapidly disappears if the administration of the drug be stopped. The nitrite is largely destroyed in the system, being partly, however, excreted as nitrate, partly probably as urea; a portion of it is excreted as nitrite.

The pharmacology of the other nitrite is briefly dismissed. Nitrate of potassium, nitrite of ethyl, nitrite of amyl act in very similar manner to the sodium salt. Nitro-glycerine acts partly as a nitrite and partly *per se*. In small doses it exerts the nitrite effect as a paralyzer; in large doses it produces convulsions.

Dr. Murrell, of London, England, referred to his discovery of the usefulness of nitrite of amyl in the condition of angina pectoris, and he always advised patients to carry the medicine in a small bottle. The pearls he considered too expensive for use. The tabellæ (Ch. B.) of nitro-glycerine, made with chocolate, he considered dangerous from their resemblance to confections. He has used nitro-glycerine in one-per cent solution (dose ♏. v—xv) in cases of neuralgia of the fifth nerve, surgical shock, asthma (spasmodic and cardiac)), and reflex neuroses. He preferred this in epilepsy to the nitrite of sodium, which had been recommended by Dr. Law. In angina, patients can take fifteen minims when they feel the attack coming on; such patients should carry a small bottle with them for immediate use when they feel the attack coming on, otherwise they might perish before the agent could be obtained. He gave an amusing instance of the difficulty of obtaining nitro-glycerine in England at present.

Dr. Upshur, of Richmond, Va., reported a case in which the inhalation of nitrite of amyl, in a patient suffering with heart failure and puerperal septicemia, undoubtedly saved life by cautiously continuing the remedy whenever there was failure of the pulse for about forty-eight hours, when it was withdrawn and diffusible stimulants substituted.

Dr. Wade, of Holly, Mich., prefers a ten-per-cent alcoholic solution of the amyl nitrite, which he uses by inhalation. He regards it as the best form of cardiac stimulant in sudden emergencies.

Dr. Phillips, of London, England, had experienced headache, dizziness, and faintness after taking five minims of a one-per-cent solution of nitro-glycerine hypodermically. He had found the tabellæ (each ♏j of a one-per-cent solution) useful in angina pectoris. Patients usually will not tolerate more than three or four of these, but some will require twenty-five or thirty. The effect of sodium nitrite is more prolonged than for the ethereal nitrites, and for this reason he prefers to give it in dyspnea attending bronchitis.

Dr. Brackett, of Washington, D. C., reported a case of successful treatment of an epileptic by the use of amyl nitrite by inhalation.

Dr. Wade, of Holly, Mich., recommended nitro-glycerine in cases of threatened local asphyxia of brain from embolism or thrombosis; he had had good results.

Dr. Phillips, in answer to a question, said that he would regard fifteen minims of solution of nitro-glycerine, hypodermically given, as a dangerous dose.

Dr. Murrell thought that there was no advantage to be derived from its hypodermic use, since it acts so quickly when swallowed.

The next paper was read in German,

ON THE POISON OF COBRA,

by Dr. Julius Guezda, of Berlin. The substance upon which the experiments were made was brought from India by Dr. Robert Koch. It was obtained by making the cobras strike some shells covered by sheepskin. The poison was afterward dried. It is soluble in water, but not in alcohol or ether; its activity is lost by boiling. It is uniformly poisonous to higher animals. The European hedgehog and the ordinary swine of this country are popularly believed to enjoy an immunity, but this is explained by mechanical obstacles to absorption in these cases. The poison is contained in an albuminous fluid, but its chemical construction is not as yet settled. It is poisonous when applied to mucous surfaces without causing blisters.

The effect is very marked when the poison is injected into the circulation. The blood-pressure is at first increased, the blood corpuscles are changed in their shape, and the spectrum of the blood is characteristic. It was found that death did not occur at once, but after about half an hour, and as the result of failure of respiration, so that the Indian Government was induced to recommend artificial respiration in such cases. At present no antidote is generally accepted Since it is not known whether the poison is an alkaloid, a ptomaine, or other body, such a question is at present only a speculation. As it is secreted by salivary glands, it is probably an albuminous body. Permanganate of potash has not been found an efficient antidote.

Dr. Phillips, of London, regarded the paper as an interesting contribution to our knowledge of the characteristics of snake-poison.

Dr. Lewin, of Berlin, could not harmonize the report made of the spectroscopic appearance with the usual characters of the blood-spectrum. The appearance was peculiar and needed further investigation. With regard to the antidote, it may be acknowledged that there can be no general antidote to counteract the poison after it gets into the system; but if the remedy can be injected *locally* into the wounds, then potassium permanganate and a number of agents having a caustic effect may neutralize or destroy it.

Dr. Woodbury said that in regard to the nature of the poison, Drs. Mitchell and Reichert, of Philadelphia, had conducted a series of experiments which seemed to establish the fact that the snake poison is not a single substance, but is probably composed of two, one of which is of the nature of a peptone. In the "Life of Francis Buckland," the English naturalist, the incident is given of Mr. Buckland having been inoculated with a very minute portion of the virus, accidentally, under his finger-nail. He shortly afterward suffered with intense pain at the back of his head, faintness, and collapse, from which he recovered with difficulty after taking large doses of ammonia and brandy. He attributed his recovery to the antidotal effects of these agents. We may conclude that when a minute amount has been absorbed ammonia and alcohol are antidotal, but where any considerable amount is received into the circulation the case is hopeless

Dr. Traill Green said that he had made some experiments with snake-poison, and had been surprised by the quickness of the effects on a rat which had been bitten over the jugular vein. Death was instantaneous where the poison entered the blood directly.

Dr. L. Lewin, of Berlin, read a paper

ON THE MAXIMAL DOSES OF DRUGS.

Of the many difficulties which pharmaco-therapy has to strive against, the dosage of medicine is by no means the least. Variation in dose arises (1) from the differences: (*a*) between one person and another; (*b*) between single individuals at different times; (*c*) between the intensity of the disease in men suffering with the same affection; (*d*) between diseases in which the same drug is used. (2) From the variability in the activity of the greater part of our remedies.

At the same time it is possible and desirable to establish the usual dose of agents which are active in relatively small quantity, and which readily produce toxic effects when the dose is increased. Two groups of preparations fall under this head: (1) Plants (crude) and plant-products, and their pharmaceutical representatives; (2) chemical substances such as metalloids, metallic salts, and carbon compounds.

The first group is almost universally inconstant in its effects, and thus far an international agreement as to their maximal doses has not been possible. The remedies of the second group, on the contrary, are nearly uniform, and the doses beyond which they can not be given without danger can be determined by physiological experiment; but although the basis for such agreement is tolerably broad, yet the statements given in different pharmacopeias in many cases vary greatly. Such variation can be easily explained in the case of the first group, but becomes incomprehensible in the second.

From the results of his own observation and a comparison of the most of the pharmacopeias which give maximal doses the author had constructed a table of the ordinary maximal doses of many of the drugs belonging to the second group, which he appended to this communication. Such a list should be added to the pharmacopeias of such countries as have no maximal dosage, for the convenience of the practitioner, who thus would be enabled to prescribe such drugs with confidence even if they should not be generally used in his own country. From this Congress he hoped the influence would go out which would make such an international agreement possible.

Dr. F. Woodbury instanced the varying effect from chloral hydrate, which is sometimes taken safely in large doses, and at other times proves rapidly fatal, even in doses of ten grains. He inquired if this effect could be due to the coincidence of digestion and the change of the chloral into chloroform by the alkaline bile, as Liebig believed.

DEATH UNDER ETHER.—A case is reported from Philadelphia of death under ether. The patient was undergoing an operation for hemorrhoids, when he was noticed to be breathing irregularly, and, despite all that could be done, died without recovering consciousness.

Reviews and Bibliography.

A System of Gynecology. By American authors. Edited by MATTHEW D. MANN, A. M., M. D., Professor of Obstetrics and Gynecology in the Medical Department of the University of Buffalo, N. Y. Volume 1. Illustrated with three colored plates and two hundred and one engravings on wood. 8vo, pp. 789; leather. Philadelphia: Lea Brothers & Co. 1887.

If we may judge from the proportions of the first volume, the eminence of the contributors, and the character of the work here presented, the System of Gynecology by American authors is destined to be by far the most voluminous and instructive treatise upon this topic yet published or projected.

Certainly American physicians have no need to draw upon foreign sources for instruction in this department of medicine, since America is admitted to be the birthplace of the science and the arena of its most brilliant discoveries and achievements.

The contributors to this volume are Henry C. Coe, Emiline C. Dudley, Henry J. Garrigues, Egbert H. Grandin, A. Reeves Jackson, Edward W. Jenks, Matthew D. Mann, Richard B. Maning, Chauncy D. Palmer, Thaddeus A. Reamy, Alphonso D. Rockwell, Alexander J. C. Skene, Ely Van De Warker, and W. Gill Wylie. The initial article is a historical sketch of American gynecology admirably set forth by Dr. Jenks. Certainly no American physician can peruse this paper without commendable pride.

The scientific articles embrace the following subjects: Development of the Female Genital Organs, Anatomy of the Female Pelvic Organs, Malformation of the Female Genitals, Gynecological Diagnosis, General Consideration of Gynecological Surgery, General Therapeutics, Electricity in Gynecology, Menstruation and its Disorders, Sterility, Diseases of the Vulva, Inflammatory Affections of the Uterus, Subinvolution of the Vagina and Uterus, Peri-uterine Inflammation, Pelvic Hematoma and Hematocele.

These topics are systematically developed without the omission of any important detail, each article setting to the physician's hand in admirable form what is to-day known upon the subjects discussed.

The illustrations are abundant and of unusual technical excellence.

Sexual Impotence in the Male and Female. By Wm. A. Hammond. Detroit: Geo. S. Davis. 1887.

It might have been expected that some one engaged more extensively in the study and treatment of diseases of the generative system, rather than an eurologist, would have felt it incumbent on himself to write a treatise under the title of this work. But as Dr. Hammond is perhaps the only man, not himself the subject of impotence, who believes that even probably "more unhappiness is caused by sexual impotence than by any other disease that afflicts mankind," it properly fell to his lot to take the subject in hand. In this work we have a collection of all the principal instances of manifestation of the most debased sexual instincts contained in medical history. It does not readily appear what relation many of them have to the treatment of impotence or to the subject matter of the book at all. But Dr. Hammond wanted to tell them, it seems, and the title of the treatise afforded a fair pretext for doing so. And even though one turns from much of it with loathing, it may be well that it has been written. It is well to know how debased men can become under the influence of morbid mental constitutions. It seems to us, however, that these belong rather to a treatise on insanity than a treatise on impotence. Outside of this feature there is not a great deal in the work that is new.

Elementary Microscopical Technology. A Manual for Students of Microscopy, in three parts. Part I. The technical history of a slide from the crude materials to the finished mount. By Frank L. James, Ph. D., M. D., President St. Louis Society Microscopists, etc. St. Louis, Mo: St. Louis Medical and Surgical Journal Company. 1887.

The author develops his subject after the manner of the best teachers. He begins at the beginning, and, conceding nothing as already known to the student, develops his theme systematically and without the omission of any detail from the most important to the most trivial.

The demonstrator of microscopy will find in this work a substantial help in teaching, and the student will discover that it meets every requirement of a working manual.

Tracts on Massage—No. 3. The Uses of Massage in Medical Practice. Translated from the German of Reibmayr, with notes by Benjamin Lee, A. M., M. D., Ph. D. Price, 25 cents. Philadelphia. 1887.

The busy doctor who can not find time for the perusal of one of the more elaborate works on massage will be able through this tract to acquire considerable information upon this important subject at a trifling expenditure of time and money.

Phenyl Hydrate Test for Sugar. By A. K. Bond, M. D. Baltimore, Md. Reprint.

Etudes Cliniques sur Le Morrhuol. Extract de l'huile de foie de moine brune. Par E. Chazeaud.

Transactions of the Medical Association of the State of Missouri at its Thirtieth Annual Session; pp. 159. St. Louis. 1887.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland. Eighty-ninth Annual Session, held at Baltimore, Md. 1887.

The Physician's Leisure Library. No. 3. Diarrhea and Dysentery. Modern Views of their Pathology and Treatment. By A. B. Palmer, M. D.; pp. 128. Detroit: George S. Davis. 1887.

Maryland State Board of Health. The Sanitation of Cities and Towns and the Agricultural Utilization of Excretal Matters. Report on Improved Methods of Sewage Disposal and Water-Supplies. By C. W. Chancellor, M. D., Secretary of the State Board of Health of Maryland; pp. 176. Baltimore. 1887.

Transactions of the Texas State Medical Association. This handsomely gotten up volume of 430 pages gives a detailed report of the proceedings of the Nineteenth Annual Session of the Texas State Association, held at Austin in April, 1887. The evidences of work presented, both as to kind and quality, is exceedingly creditable to the progressive profession of the "Lone Star State."

Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Considerable interest is awakened by some recent therapeutic facts with regard to the use of antipyrine as a substitute for morphine. Dr. Knoer's pure antipyrine has been given for this purpose in the form of hypodermic injections. This method of applying it appears to increase its action without interfering with the functions of the bowels. Attention is drawn to the fact that the solubility in water of the drug allows it to be used easily in this manner. The dose used is seven and one-half grains dissolved in the same quantity of pure distilled water; this represents the contents of the Pravaz syringe. The operation is performed just as in the case of a morphine hypodermic injection. There is for a few moments a painful sensation of tension, followed by a considerable remission of pain, from whatever cause it may arise. It is asserted that in such cases antipyrine does not present any of the disadvantages almost constantly observed when morphine is used, such as vertigo or vomiting. Neither does it throw the patient into a state of somnolency, nor produce that artificial excitation which eventually leads to morphine mania.

Cases of acute articular rheumatism have been cured after two or three hypodermic injections of antipyrine (seven and one half grains each), assisted by the prolonged use of forty-five grains of the same medicament taken internally. Acute and chronic gout, nervous rheumatism, tic douleureux, herpes zona pains, and lumbago were cured almost instantaneously or greatly relieved. Satisfactory results were also obtained in cases of hepatic colic, nephritic colic, angina pectoris, etc. So that it appears evident that there is in antipyrine a remedy capable of taking the place of morphine for relieving pain, and having none of the drawbacks of the latter.

A writer has drawn attention to the fact that although antipyrine has now been before the profession for four years, and has been largely used, yet the new edition of the "Companion to the United States Pharmacopeia" does not mention it at all.

At the forthcoming International Congress on Hygiene and Demography, to be held at Vienna, one of the reports devoted to factory hygiene and legislation, containing a sketch of the law relating to factories and workshops in the United Kingdom has been prepared by Mr. F. H. Whymper, H. M. Superintending Inspector of Factories. There are three reports on the isolating of hospitals, three reports on practical systems of disinfection, and three on rag importation, one of them being from Professor Corfield, M. A., M. D., of University College, London. A paper will also be given by Mr. S. T. Murphey, Lecturer on Hygiene and Public Health, at St. Mary's Hospital, on International Regulations against Epidemics. The occupation of the Congress, at which nearly fifteen hundred members will be present, and of whom twenty-three are from Great Britain, will not be limited to debate, but will combine recreation. Not less than twenty-two governments have sent delegates officially, and there are besides many other delegates from provinces, towns, and corporations.

Dr. Pearce, of Brighton, has drawn attention to two interesting cases of tetanus which recently have been under his care.

The first, a man aged seventy-two years, applied on March 10, 1887, suffering from a lacerated contused wound of the terminal phalanges of the two middle fingers of the left hand, carved by a blow. The phalangeal joint appeared uninjured, and no fracture could be detected. Symptoms of tetanus occurred on March 22d, with great pain in the finger and arm and stiffness in the back of the neck. He ordered potas. bromid. ʒjss every four hours. On the 24th the patient had slight opisthotonos. Fifteen grains of chloral hydrate were ordered every four hours. After this he improved, but had relapses on April 7th and April 28th, the spasms each time being relieved by chloral. Ninety grains were administered in an enema on April 7th. After the 28th he made an uninterrupted recovery. His temperature was low throughout, not exceeding 100°.

The second case was that of a man aged fifty-one, who was seen on March 2, 1881, with symptoms of tetanus. Ten days before the tip of his left thumb had been crushed by a blow. The nail was complete and the wound almost healed. He was treated at first with bromide of potassium, afterward with ten grains of chloral and thirty grains of bromide of potassium every four hours, and various other remedies were tried, but he died from exhaustion on March 15th. Pulse and temperature were high from the commencement.

The peculiar thing was the similarity of the injuries in the two cases. The first patient was older and had had a hard and very irregular life; he had suffered from gout and gravel. The case was a severe one, and the influence of the chloral very remarkable. In the second case the man had for many years led a regular, temperate life, and had no known ailment. Both cases occurred in cold weather, and in both the patients great complaint was loss of sleep, and in neither case would chloral relieve this.

The scarlet fever epidemic continues in London. Dr. Tripe, the health officer for Hackney, condemns the action of the managers of the Metropolitan Asylums District in delaying to prepare more hospital space for the reception of fever patients. He says that the statistics of the disease since 1840 showed last year that an epidemic of scarlet fever would almost certainly occur this year, probably with a violence unequaled since the opening of the Asylum Board's hospitals. The disease has a tendency to occur as a severe epidemic once in four or five years and to last for two or nearly three years, the period of low mortality in no case exceeding two years. Since 1878 there has not been any severe epidemic until now, the mortality remaining at a fairly uniform level with an exacerbation in 1880. In 1885 and in 1886 the mortality was lower than in any year since 1840, due allowance being made for increase of population, and it is therefore reasonable to suppose from the past that this year would witness the commencement of a severe epidemic. Dr. Tripe fears the epidemic is only at its commencement and that the number of patients will increase up to November next, then decrease gradually again up to March next year, then increase again. At the present time there are one thousand and ninety-nine cases of scarlet fever under treatment, distributed pretty evenly in five hospitals. The cases continue to come from all parts of the metropolis and suburbs, but mainly from the southern districts.

The death is announced, at the advanced age of eighty-seven years, of Mr. Richard Quain, the eminent surgeon, which took place at his residence, 32 Cavendish Square, on Thursday, September 15th. He was ex President of the Royal College of Surgeons, Professor of Anatomy in London University College from 1839 to 1850, and of Clinical Surgery from 1851 to 1866, and had been Surgeon Extraordinary to to the Queen since 1862. His work on Anatomy was for many years a standard work, and its publication was a source of large income to the author.

LONDON, September, 1887.

Translations.

BLOOD-LOSS DURING LABOR.—(Prof. Schauta, of Innsbruck.) The author has engaged more closely in the investigation of the question, first discussed by Ahlfeld, as to the amount of blood lost during physiological labor, seeking on the basis of the results of his investigation a judicious method for conducting the period of the after-birth.

The blood-loss was determined by Schauta in the most accurate manner. And with this view all the blood that passed from the escape of the fetus to the complete escape of the after-birth, and for three hours afterward, was carefully weighed.

One hundred unselected cases were treated by the expectant method according to the directions of Ahlfeld. The loss of blood during the period of the after-birth amounted in three cases on an average to 14½ ounces, and during three hours *post-partum* 4½ ounces, an average total of 19 ounces.

The careful weights of Schauta also showed that Ahlfeld rated the blood loss far too small when he placed it at an average of 20 ounces in the expectant method.

In twenty cases the loss of blood by the expectant method amounted to more than 30 ounces. The author thinks that a total loss of more than 30 ounces must be regarded as pathological. In the case of primipara, the loss of blood by the expectant method was greater than with multipara, both during the first hours of labor and during the period of after-birth.

Both in primipara and multipara the loss of blood during the period of the after-birth was less after rapid than after tedious labor.

Upon exactly the same principles, and in the same way, the author further determined the total loss of blood in one hundred subjects in which the period of the after-birth was conducted on Credé's method. The average blood-loss in the three periods of labor amounted to 9 ounces, and in the first three hours after labor to 7 ounces, making a total of 16 ounces. Pathological bleeding was present in only 16 per cent. Against the method of Ahlfeld and in favor of that of Credé was an average of 3 ounces, and a smaller per cent pathological blood-loss.

In the third plan, the author, on exactly the same principles, determined the blood-loss in fifty cases treated by the Dublin method during the third stage.

The average lost by the Dublin method amounted in the third stage to 11½ ounces, and during the first three hours *post-partum* 6 ounces, or 17½ ounces in all.

Retention of parts of the after-birth did not happen in these fifty cases. In six cases, or 12 per cent, there was pathological loss of blood (over 30 ounces).

Of the cases treated by the method of Ahlfeld, 93 per cent remained perfectly free of fever, 85 per cent of those treated by Credé's method, and 78 per cent of those treated by the Dublin method.

On the basis of these investigations the author has constructed theoretically a most judicious method for the treatment of the period of the after-birth.

According to this method, as soon as it is separated, on an average in half an hour, it should be forced out by light pressure; till then the uterus is to be stimulated by gentle rubbing, according to the Dublin method.

This theoretically constructed method was then practically tested in one hundred cases, and exactly on the principle of the previous tests. The loss of blood amounted in these, on an average, to 10⅓ ounces during the period of the after-birth; in the next three hours to 6 ounces; an average of 16⅓ ounces. Pathological loss of blood (over 30 ounces) occurred in only 9 per cent. Ninety-nine cases remained entirely free from fever.

Expression by gentle pressure succeeded in eighty-six cases after half an hour, once in thirty-five minutes; in the thirty-five remaining the after-birth passed out spontaneously before pressure.

The amnion passed imperfectly in only one case; in twenty-seven cases after the birth of of the placenta they were removed by twisting. The author in this procedure sees no remnants, and bases it upon the fact that the placenta, by his method, is expressed only by a gentle pressure and slowly.

The theoretical plan of the writer finds in these investigations its full confirmation. He will not present this method as by any means entirely new, but perceives in it all the advantages of each of the three methods, without their untoward consequences.

Professional Etiquette.—The following rules have been adopted by the medical circle of Verviers:

1. A physician called to attend the patient of another shall not render his services until the colleague who preceded him shall have been discharged, and in case he has not been discharged shall propose a consultation.

2. The physician called in an emergency to a patient under treatment ought to limit himself to giving necessary attention, and leave a copy of his prescription for the attending physician.

3. All the members of the circle agree to take the place of an associate who is taking a vacation or detained at home by sickness, but this is not to hinder him from making an agreement with some one of them for attention to his *clientele.*

4. The physician so absent or sick ought to advise his associates of the date at which he will resume his visits; the latter shall immedi-

ately transmit to him the list of patients treated by them, with such information as they may think indispensable.

5. It is required by the dignity of the profession that the patients of an absent or sick associate should not be retained.

6. Another duty of the physician is that he shall abstain from unfavorable comment on the treatment of the brother physician who has preceded him and from unkindly insinuations.

7. A physician who succeeds another is not permitted to adopt for his *client* a scale of fees below that of his predecessor.

8. The consulting physician shall not supersede the attending physician until after having first apprized him in writing of the intention formally expressed by the patient.

9. The physician ought to leave to the patient the choice of the consultant and of the *accoucheur*, and to depart from this line of conduct only when the family earnestly requests him to designate for himself.

10. The physician expelled from the circle is the only one with whom a consultation may be refused.—*Journal de Med. de Paris.*

TREATMENT OF DIPHTHERIA.—(By Jules Simon.) A specific for diphtheria is yet to be found. None of the so-called infallible remedies have accomplished what their publishers and discoverers promised.

The author would absolutely prohibit (1) vesicatories, because with them the skin would become diphtheritic; (2) mercurial preparations and blood-letting, because they weaken the patient; (3) opiates, because they produce a rapid destruction of strength; (4) large doses of chlorate of potash on the same grounds.

Locally the author uses pencilings, irrigation, and gargles.

For penciling he employs lime juice, vinegar and water, or red wine, but preferably the following:

Acid salicyl	grs. xx;
Decoct. eucalypt	℥ iv;
Glycerine	℥ ij;
Alcohol	℥ j.

The best is a wooden-handled pencil improvised by Charpie. It is necessary to gain the right mean between severe scratching and touching too lightly; he advises penciling every hour through the day, and every two hours during the night. In children of the age of discretion he recommends gargling with boracic acid four one-hundredths, or borax four two-hundredths, lime water, water and vinegar, chlorate of potash eight two hundredths, etc. To the neck he applies cloths with ointments of iodide of potash, belladonna, or hyoscyamus. From iced applications he fears lung complications. Internally he gives tincture chloride of iron, three to six drops in water every two or three hours. In children of from five to six years he gives copaiba and cubebs internally. Chlorate of potash, so effective in affections of the mouth, he regards as without value in affections of the larynx. A chief point is the employment of a tonic treatment by means of alcohol, wine, quinine, columbo, and nourishment. Too much can not well be done in this way. Good air in the sick-room with a temperature of from 45° to 60° is a self suggested provision.

The effectiveness of smoking, as recommended by Delthil, the author can not confirm. A certain number of favorable or unfavorable cases is not sufficient to enable one to decide on a method. There are favorable and unfavorable series, and we are justified in calculating only from a great number of cases. The author has had a favorable series to present after treatment by sesqui chloride of iron.

This method he might call a powerful, not to to say an infallible one; but, warned by the unfavorable outcome of other methods which have made their good records in favorable series, he has avoided making them public because they were too few for attaining any thing like certainty.

In the beginning of croup the author advises an emetic at once, and preferably ipecac, as it weakens the heart to the smallest extent; but this is only effectual in the beginning. Later, tracheotomy is the only resource.—*Deutsche Med. Zeit.*

TREATMENT OF NEURALGIAS.—In facial and subcutaneous neuralgias marvelous results have been obtained from the combined action of the constant current and chloroform. Professor Adamkieviez has had constructed a porous carbon electrode into which he is able to introduce chloroform. Under the influence of the current the chloroform of the electrode, which is connected with the positive pole of the battery, penetrates the tissues. One may convince himself of this fact by coloring the chloroform with gentian violet and then passing the current through the ear of a rabbit. It produces a triple action (through the constant current and the chloroform), cataphoresis at first, then the sensation of burning, and finally anesthesia. The professor cites many observations where this method has proven remarkably successful. For deeply seated nerves in sciatic neuralgias, etc., anesthesia is not obtained.—*Le Progrès Médical.*

Abstracts and Selections.

Atheroma of the Left Coronary Artery Resulting in Aneurism of the Apex of the Left Ventricle.—As this subject is so little associated with my usual practice, it is with some hesitancy that I present even this short report. Aneurisms of the heart, however, are not common in clinical reports, and I trust that fact alone will justify the presentation of the case.

The patient was an intimate friend of mine, and it was only at his special request that I took charge of the case. He was fifty-seven years of age, and his occupation was that of a lawyer. His previous life was unexceptionally exemplary. He did not use tobacco in any form, and was exceedingly temperate and methodical in all his habits; his carriage was such as to suggest the impossibility of any hurry on his part. His general build may be characterized as corpulent, although when young he was very thin. At the age of thirty he was declared to be dying of consumption. Recovery, however, seems to have occurred without medical assistance.

An ill-defined *malaise* extending over a period of six weeks or two months suddenly increased to such an extent on the 20th of October, 1885, that he was unable to leave the house and was obliged to call assistance. This *malaise* consisted of wandering pains, not severe, over the chest, extending to the left shoulder and down the left arm, sometimes reaching the wrist. They were not periodic, and could not be associated with any definite act of daily life, but would rather come on when any change of action was about to take place.

He first called my attention to this, thus: "I don't know whether I want to follow a doctor's directions or no. I get occasionally flying pains over my chest and in my left shoulder, but on walking about a little I can make them disappear." As he always had a marked antipathy for medicine of any kind, and I did not possess any firm conviction of any greater benefit likely to follow any thing I could suggest than the benefit he claimed from exercise, I told him to continue to use the method he had found successful, and report later. At this time I had no conception of the existence in his case of atheromatous coronary arteries, nor did I suspect that the wandering pains were associated with incipient angina pectoris.

About six weeks after the interview above referred to, an acute attack of difficulty of breathing, associated with severe coughing and anxiety of countenance, came on. From this time he did not leave the house only for short walks. The pulse at this time was 120, feeble but regular. Breathing very laborious. Could not lie down on the back or left side, and only for a short time on the right side. Cough was not troublesome. No special features present in the alimentary canal. On percussion no perceptible enlargement of the heart was detected; percussion also failed to reveal any enlargement of the liver. On auscultation the heart revealed no definite abnormal sounds. The principal feature which I observed was that of a systole; the ventricles seemed to stop as though shutting down on a pledget of wool. I find that Constantin Paul refers to this symptom very definitely as associated with aneurism, or what he calls false aneurism, of the heart. It certainly struck me as the one striking feature of the case. There was at this time no edema, no fever, no albumen in the urine.

From the beginning his condition was considered grave, and consultation was obtained from the first.

Drs. H. A. Johnson and R. H. Babcock both saw the case, and the former remained as consulting physician to the end. The various heart tonics, such as strychnia, arsenic, and digitalis, were used with no demonstrable effect except this, that when the digitalis was increased so as to diminish the frequency of the heart's action the action became so tumultuous and incoördinate that it was deemed best to let it beat at the gait that it found most convenient. In about a fortnight after the commencement of the acute attack anginal pains became more prominent, and atheroma of the coronary arteries was suspected. There was no evidence, however, of any atheroma of any superficial vessels. From this date a bottle containing carbonate of ammonia and camphor became his companion, supplemented with small pellets of nitro-glycerine, one one-hundredth of a grain. The latter gave more satisfaction than the nitrite of amyl. The anginal pains were not at any time characteristic for their severity, but the pallor of countenance and anxious expression were characteristic. Later on, the feature of asystole was not so well marked. The feet had exhibited, on several occasions, a tendency to edema, but about ten days before death it began to increase rapidly, and no remedies were found capable of removing it. The edema extended gradually to the hips, abdomen, and chest, and about nine weeks after the acute attacks, while walking across the room, he fell dead.

I would like to remark here that he derived marked comfort from gentle exercise with fresh air. When the sidewalks were covered with ice, so that he could not possibly walk out of doors, he would wrap up and walk in a room with the windows wide open. Nitro glycerine and carbonate of ammonia were the only remedies that gave him any appreciable relief.

The autopsy, which he himself requested—he had a horror of being buried alive—reveals nothing remarkably peculiar except the condition of the heart. This autopsy was performed on the day following the death by Dr. Frank Cary in the presence of Drs. H. A. and Frank S. Johnson, R. H. Babcock, and myself. The heart was somewhat enlarged; all the valves were competent; there was little or no atheroma manifest except in the coronary arteries. One of these I show you almost completely occluded It was just below this manifest atheroma of the left coronary that in the wall of the left ventricle near the apex the aneurism had developed. I should characterize it as about the size of a large walnut. The wall of the heart in the thinnest part was estimated by Dr. F. Johnson as only two millimeters thick. The aneurismal cavity was filled with blood, part of which showed signs of organization and part signs of disintegration. The clot was evidently formed at two different periods. The microscopic sections, for which I am indebted to the kindness of Dr. F. S Johnson, show this well. There were no signs of chronic endocarditis, but some of slight chronic myocarditis.

Bramwell divides aneurisms of the heart into acute and chronic. Constantin Paul calls such cases false aneurisms, and then adopts the same division. "Acute aneurism," says Bramwell,* "may result from any which, after a hypodermic injection of morphine, in a condition of atheromatous coronary arteries, the patient has passed off very rapidly, and I would be chary of using it, especially if I could obtain a satisfactory result from nitro glycerine. The form of nitro glycerine that I used was the elegant tablet of Fraser, so much more convenient than the alcoholic solution.—*Dr. Robt. Tilley, Proceedings Chicago Med. Soc.*

KIDNEY BALLOTTEMENT.—Profesor Guyon has indicated a sign that will allow a surgeon to detect an augmentation of the kidney during its initial period. Hitherto this had not been possible, and, as it is of considerable importance in the early diagnosis of renal complaints, we will state his method. First, as to the method of exploration. M. Guyon remarks that it is usual, in attempting the palpation of the kidney, to get the patient to flex the legs and thighs on the pelvis; but this attitude only seems to make them contract the abdominal muscles, and renders the exploration of the kidney more difficult; so that he finds it preferable to allow the patients to remain quietly in the horizontal position, only taking away the pillows and telling them to breathe slowly and quietly. Then he slips his right hand flat over the posterior region of the kidney, and insinuates the index and medius fingers into the costo iliac space, and proceeds to raise up this part of the lumbar region by making sharp and repeated pressure. Up to now these shocks have been used to arouse the sensibility of the kidney, which is nearly always manifest in nephritis. However, it is well to commence by searching for pain, as it will be the guide of further exploration. If the pain be severe, the shocks needed to show the *ballottement renal* must be given with great care, so as not to arouse the reflex contraction of muscles, which will interfere with Guyon's sign. The left hand of the operator is now placed flat on the anterior abdominal wall with slight compression, varying according to the case, while the right hand continues the slight shocks until the *ballottement* is felt against the left hand, with something of the same sensation as the abdominal *ballottement* from the fetus felt in the early months of pregnancy. The pressure of the left hand must not be extreme, because then the kidney will not have room enough, as it were, to move upward and give the sign sought for. When the left kidney is to be examined, owing to its situation, the abdominal hand must be placed higher than on the right side. It must be insinuated under the false ribs a little, if possible. This kidney-shock, or *ballottement*, when felt, indicates clearly *an augmentation in the volume of the kidney, and it can not be obtained when the organ preserves its normal size.*

What is the diagnostic value of this new sign? It is of importance to reveal any slight increase in the size of the kidney *as soon as possible* in all malignant affections of the gland, because its extirpation will be just that much less dangerous and so much more easy as it is least developed. Thus all the kidney tumors, hydro-nephroses, renal tuberculosis, and all forms of surgical nephritis will now be better diagnosticated by attempting to get Professor Guyon's sign, and so judging of the slightest augmentation of volume of the kidney, and, as it increases, of the advisability of operation. *Philadelphia Medical Times.*

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*Bramwell, Diseases of the Heart, p. 576.

ANTIPYRINE.—The application of antipyrine seems to extend day by day. Professor Germain Seé is one of its decided partisans in its use against pain, and goes so far as to count on it in the place of morphine. Its easy solubility allows of its use in subcutaneous injections, and Dr. Seé adopts this form for rheumatic pains in half-gram doses. It must be stated, however, that at the same time three grams are given by the mouth, with the result of nearly always calming the pain both in chronic rheumatism and in acute gout.

M. Seé also states that he cured three cases of tic-douleureux, and also cases of painful zona, lumbago, megrim, hepatic colic, nephritic colic, angina pectoris, asthma, and a long list of other troubles, including heart-pains. Professor Seé does not hesitate to conclude that it can entirely replace morphine, and certainly it has not the inconveniences of that drug; but will it always have the fidelity of action that it has against pain? Time alone can tell. At the present moment all the great hospital services are trying antipyrine in all sorts of troubles, so that in a few months its remarkable sedative influence will be investigated enough to enable us to report more fully upon it.

M. Chouppe reports to the Société de Biologie that he had occasion to employ antipyrine in rectal injections to calm uterine colic. In one case a woman was suffering with intense after-birth pains, and an injection containing one gram of the drug removed the pain. It returned after several hours, but a second injection was given with the result of a definite cure. A second observation was that upon a woman who, for several years, had violent colic at every menstrual period, which lasted several hours at a time. Relief could not be obtained without great difficulty by the use of doses of laudanum or chloral large enough to produce profound sleep. At her last menstrual period, during a most violent attack of pain, one gram of antipyrine was given by rectal injection, with the result of complete and definite calm being established within a quarter of an hour.

The same author also spoke of the "Reciprocal Action of Antipyrine and Strychnine." He made a number of experiments to see if antipyrine, in large doses, would modify the form and intensity of strychnine convulsions, according to a suggestion of Professor Brown-Séquard. He found that the convulsions produced in animals by antipyrine did not at all resemble those of strychnine in three important points: (1) They were not brought on by peripheric excitation; (2) their form was not so tetanic; they consisted of a series of rapid clonic convulsions without any real tetanization of the muscles; (3) they did not act so much on the muscles of respiration, and this function was not at all suspended with danger of asphyxia, as in strychnine convulsions. Adding the action of strychine to antipyrine, M. Chouppe injected into the veins of an animal which was already in a state of convulsion from antipyrine a dose of strychnine that should have killed it, but the antipyrine convulsions were simply replaced by strychnine convulsions, and the animal did not die. Then a stronger dose of antipyrine was injected into its veins, which caused the strychnine form to give way to the antipyrine convulsions. The result of various experiments seems to establish that the action of antipyrine to some extent prevents the convulsions of strychnine by reducing the power of the spinal marrow.—*Ibid.*

ANTAGONISM OF MORPHINE AND ATROPINE.—After using atropine as an antidote for morphine poisoning without any markedly beneficial results, Dr. Hermann Lenhartz, of Leipzig (*Arch. für exp. Pharm. u. Path.*), has been led to consider its real value in such cases, and more particularly to study the extent of the physiological antagonism. He first of all satisfied himself of the effects of lethal doses of morphine on dogs, and observed that cramps and tetanus more or less severe occurred in the last stage, respiration ceasing, and the animal succumbing during the seizure. The diminution in the frequency of the pulse and the lowering of the general blood pressure are constant phenomena in morphine poisoning, whether the dose be large or small, and can be produced by non-poisonous doses. On the administration of atropine, dilatation of the pupils, quickening of the pulse, and an increase of the blood-pressure at once take place. The last two effects can equally well be produced by division of both vagi. Atropine antagonizes morphine in these particulars, but has no real influence in preventing the toxic and deadly effect of morphine, as he finds that in none of his experiments had atropine any effect whatsoever on the cramps and convulsions, during one of which attacks sooner or later the animal dies. He compares and considers the last stage of morphine poisoning as analogous to that of strychnine poisoning, and holds that in none of his experiments had atropine any effect in preventing the last stage. Further, he considers that although atropine antagonizes certain physiological effects of morphine, yet these are of no value in keeping away the most serious and lethal symptoms.—*Lond. Pract.*

Boro tannic Powder in Diseases of the Eyelids.—Dr. Wicherkiewicz (*Recueil d'Ophthalmologie*) recommends as a means of treatment for certain rebellious forms of palpebral disease complicated with corneal affections, in which both astringents and tonics fail to effect a cure, a powder composed of one part of tannin and three parts of finely powdered boracic acid. This powder is applied with a brush once or twice daily, in a proportion varying with the intensity of the affection, to the mucous membrane of the eyelids. Any excess is removed by solution in the tears. This powder is effective also in cases of soft granulations of the *cul de sac*. The contents of the granulations are squeezed out after cocaine has first been instilled and the lid averted, and the conjunctival fold is cleansed both of the expressed matter and of blood. The surface is then dried and the powder is applied. This proceeding must be continued for from one to four weeks. At the end of this time scarcely any trace of trachoma is left; the mucous membrane becomes smooth, and its injection diminishes. A similar and equally favorable result is obtained in cases of trachoma with purulent discharge. In some cases, however, it is requisite to add the application of copper sulphate or of mitigated nitrate of silver. The re-absorption of the granulations takes place with great rapidity, pannus diminishes, and the corneal lesions improve. In severe trachoma with thick pannus the author employs the galvano-cautery in the first instance, and follows this up with the application of the boro-tannic powder. The burns disappear and the trachomatous growths become absorbed. The same means can, if necessary, be re applied. The most energetic action is obtained by first washing the eyelids to remove mucus and secretions, and then applying the cautery. The same means answer well in cases of scrofulous inflammations of the lids and cornea.—*Ibid.*

Antifebrin in Enteric Fever.—Dr. J. Solis Cohen states that his experience with this drug during his present term at the German Hospital has shown that it is more likely to produce collapse than he has ever found antipyrine to do. In doses of seven and a half grains it has reduced evening temperature from 105° to 96.5°, with a return wave to 102° and over by early morning. He has found three grains in some instances quite as effective as larger doses, while much less dangerous. He urges that physicians should see their patients within an hour or two after administration of the first dose of antifebrin, in order to determine by results the propriety for its repetition. *The Polyclinic.*

Creosote Treatment in Phthisis.—For many years Dr. J. Solis Cohen has been using creosote in phthisis, not as a specific, but for the purpose of preventing a retarding decomposition of undigested nutriment in stomach and bowels, and on the same principle in which he has been using it in chronic diarrhea for more than twenty-five years. He always prescribes the beechwood creosote, and is usually supplied with the product from Dupont's gunpowder mills. The dose given is half a minim three or four times a day after meals. This dose is rarely exceeded. The creosote is given in a gelatin capsule, with powdered extract of licorice to give it bulk, and, according as the indications may demand, powdered digitalis, quinine, iron, or iodoform or any other drug required may be added. The formula most frequently prescribed by Dr. Cohen reads as follows: powdered iodoform, 30 grains; pure creosote (beechwood), 15 minims; powdered extract of licorice, sufficient to make a mass, which is divided equally into thirty parts, which are dispensed in gelatin capsules, of which one is taken three times a day after meals. Additional capsules containing one grain of iodoform are supplied when it is desired to increase the quantity of that drug without increasing the amount of creosote. It is ten or twelve years at least since Dr. Cohen has been using creosote in phthisis, alike in private, hospital, and dispensary work, and with such benefit to nutrition that he rarely prescribes either cod-liver oil or syrup of hypophosphites.—*Ibid.*

Hypodermic Injections of Mercury.—Hypodermic injections of mercury in the treatment of syphilis have two inconveniences—the production of abscesses and of pain. The first effect can be avoided by care and scrupulous cleanliness. To suppress the second, Mandelbaum recommends the addition of cocaine to the mercurial solution. His formula is: Cocainæ hydro-chloratis, 0.05 gram; hydrargyri bicyanidi, 0.01; aquæ destillatæ, 1; M.—*London Pract.*

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. IV. SATURDAY, OCTOBER 15, 1887. No. 8.

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H. A. COTTELL, M. D.,
D. T. SMITH, M. D., - - - Editors.

A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year, postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

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THE INTER-MARRIAGE OF COUSINS.

The legislature of Illinois has passed a law making the inter-marriage of cousins a penal offense.

In an excellent editorial the Chicago Herald, after commenting on the readiness of legislatures to meddle with affairs they know nothing about, which deal with the emotions rather than material interests, declares that the law will simply act as an edict of exile for such cousins as contemplate entering into the prohibited relations.

"The sources of our pauperism," says the Herald, "and chronic diseases, might better be sought in Europe than Illinois. In the common sense of the people may be found the safest barrier against bad social arrangements. Where cousins are consumptive their children will surely die. That ends both strains of the phthisis. The people know all that. Where healthy cousins are married, the strain, as in the costliest live-stock, is thereby made purer and better? It is as advantageous to increase physical advantages as it is disastrous to join bad diatheses."

It would not be easy to present the matter in better form than has been done by the Herald. But the writer has overlooked one thing, and that is the sincerity of the legislators and those cranks whose cue on which they are acting. The former may be led by penniless office-seekers, who secretly feel that they are legislating competitors out of the matrimonial field where fortunes are in prospect that they can never gain except they win them at the altar; and the latter, regarding the matter purely from a personal stand-point, may be moved by consideration of the fact that the stock which they represent must have a new strain of blood from any outside source whatever, and the justness of their estimate must in part excuse them.

It is to be hoped that the clear-cut arguments of the Herald will fail to convince such; for, if they should take to marrying cousins, there is no telling what ills might be visited on the society unfortunate enough to be afflicted with presence of their offspring.

THE CAUSE OF HEAD PRESENTATIONS.

The current number of the Edinburgh Medical Journal contains a report of the proceedings of the Obstetrical Society of Edinburgh, held on the 22d of June, in which the Society discussed a paper by Dr. Foulis on the cause of head presentations, in which the writer insists that the head downward position is caused entirely by the constant extension of the child's legs, by which means the round head is caused to glide over the curved inner surface of the uterus, until it becomes at last fixed over the bony cup of the pelvis, the extension of the lower limbs keeping it there.

The discussion was participated in by such eminent obstetricians as Berry Hart, Matthews Duncan, Carmichael, and James Ritchie.

With some modifications of the theory, we have no doubt Dr. Foulis is correct; but the fact that the suggestion was treated by all these eminent men as original with Dr. Foulis, shows how much American journalistic literature is slighted in the "Athens of the North."

One of the editors of the PRACTITIONER AND NEWS has for the last five years advocated this theory, and it has not only been published repeatedly in our own columns, but also in the

Medical Record and Medical Journal of New York. However, we shall try to have the matter presented in full to the Edinburgh Obstetrical Society at an early date, when we hope its renowned membership will honor it with a full discussion.

MASSAGE IN FRACTURES.

In a recent discussion in the Surgical Society of Paris, M. Championniére advocated the employment of massage in fractures of bones, and expressed his belief that their cure was materially hastened thereby.

M. Marc Seé and others opposed the view; but M. Seé believed that an elastic bandage would facilitate healing in such cases as massage was recommended for by M. Championniére.

There is little doubt that, by the identical practice favored by Championniére, bone-setters have won triumphs at the expense of regular surgeons. It is well known that extensive congestion is not, as a rule, the most favorable condition for healing. In varicocele, where the venous blood-supply of the testicle is very great, the testicle on the side of the varicocele is usually more or less atrophied. We all have experienced the great relief the elevated position gives in case of an inflamed limb, and not rarely the favorable effects of the elevated position in healing have been realized in this way. The rationale can not well be any other than that, the venous blood being allowed to drain away toward the heart, pressure is relieved and nutrition favored. So massage, as suggested by M. Championniére, may do good by simply relieving the engorged capillaries and veins of a part and permitting a more perfect arterial circulation. If the treatment does good in fractures it ought to prove decidedly beneficial in sprains.

Tracheotomy in Opium Poisoning.—In a recent case of opium poisoning at Buffalo, in which all other means had failed, Dr. George Fell succeeded in resuscitating the patient by opening the trachea and keeping the lungs supplied with oxygen by means of a bellows.

Notes and Queries.

Recovery from Locomotor Ataxy.—M. Babinski, M. Charcot's *interne*, has lately laid before the Société de Biologie the details of three cases of tabes which have been long followed by M. Charcot, and in whom a complete or nearly complete recovery was traced. The first case had had very severe lightning pains for more than ten years on two or three days of the week. It was impossible for her to do any work, but now for five years she has been quite free from any symptoms. In the second case there were lightning pains, patches of anesthesia, inco-ordination of motion, and loss of power over the sphincters. The symptoms had grown worse during ten years; then they grew very gradually better, and now for four years they have completely disappeared. In the third case there was gray atrophy of the optic nerves and also attacks of lightning pains, gastric crises, and entire loss of knee-jerk; but there was never any loss of motor co-ordination. M. Charcot used often to bring forward the case as an example of the incomplete forms of tabes. The lightning pains lasted twenty-five years, and then completely disappeared. The patient died of pneumonia and exhaustion five years after the pains had ceased. A *post mortem* examination showed the presence of the changes in the spinal cord characteristic of tabes; but with the exception of the optic atrophy, which did not recover, it may be called a case of complete recovery.—*London Pract.*

Sarcomas.—In 1880 Dr. S. W. Gross established the fact that all the varieties of sarcoma are malignant, and a study of 92 of the 156 cases now under consideration confirms that view. Of the 92 cases 1 ran a natural course, being a case of round-celled sarcoma of both breasts that proved fatal, with presumed secondary deposits, in 7 months from its first appearance. The remaining 91 were operated on. Of these, 32 were well from periods varying from 1 month to 10 years and 3 months; in 42 there was local recurrence; in 8 there was both regional recurrence and metastasis; 3 recurred, with evidences of general dissemination; in 4 cases there were metastases, and in

2 cases presumed metastases without recurrence. So that 64.83 per cent of these cases were malignant. 32 patients were well for an average period of 49 months and 10 days after the operation, the disease having existed for an average of 69 months and 11 days before operation, making the mean life of these patients almost 10 years. Of the reproductions 57.7 per cent took place in 6 months, "while after 12 months there were only 13, or 28.8 per cent, and of these there were only 4, or 8.8 per cent after 2 years. These statements lead to the belief that the chances for the patient are relatively good after the lapse of 2 years, and that the prognosis is all the more favorable as the period of freedom from signs of local contamination prolongs itself." The average date of recurrence was $10\frac{1}{2}$ months, but the histological character of the growth appears to exert a marked influence on the date of recurrence. The average date of the round-celled was 4 months and 20 days; for the spindle-celled 11 months, 27 days; for the giant-celled, 12 months, 10 days. Cystic tumors recurred in 8 months, 5 days, and simple in 13 months, 9 days—a contrast which is "more striking when we state that the average date of recurrence for cystic round-celled growths was 3 months and 4 days as against 6 months and 8 days for the simple round-celled, and 9 months for cystic spindle celled as against 16 months for the simple spindle-celled.—*Journal American Medical Association.*

Colic of "Suspicious" Nature in Spain. Some alarm has been created in Madrid and some other Spanish towns by the occurrence of a number of cases of "colic" having the appearance of an epidemic, but without sufficiently definite symptoms to justify a diagnosis of cholera being made. In one town, according to a Saragossa journal, the Government instructed a medical inspector to report on the outbreak, and he has classed the cases as "suspicious." In another town, according to the same authority, the cases are definitely instances of sporadic cholera. In Madrid the milk has been analyzed by the official chemist, who was unable to find any poison in it. A correspondent of *La Correspondencia Medica*, however, states that he has recently analyzed both cheese and goats' milk which had apparently given different people colic, and found perchloride of mercury in both. He accounts for this by saying that when he was a boy he used to see the shepherds applying what they called "Solomon" to the teats of goats in order to kill the larvæ of the flesh fly, which deposits its eggs in the summer time in the cracks and fissures of those organs. This "Solomon" is simply mercuric chloride, though the shepherds are, he believes, quite unaware of its poisonous properties.—*British Medical Journal.*

Freckles.—The popular preparation known as Perry's Moth and Freckle Cure is said to have the following composition: Bichloride of mercury, 0.72 per cent; sulphate of zinc, 0.85 per cent. In the sediment were also found small quantities of lead and bismuth.

It is said that several young ladies of Salamanca have had their faces disfigured, and one is in danger of losing an eye, from the use of a freckle remover and complexion *beautifier.* It was sold by a traveling fakir calling himself Dr. McGaw, who has since been arrested. The preparation is thought to be concentrated lye.

Powdered saltpeter, applied carefully to each freckle, previously moistened, is said to be efficacious when perfectly done and judiciously repeated.

The pigment of lentigo resides almost wholly in the epidermis, and although many acids, but preferably a one- or two-per-cent solution of corrosive sublimate, carefully applied, will remove the spots, they are apt to recur in the summer season.—*Journal of Cutaneous and Genito-Urinary Diseases.*

Increasing Danger of Tape-worm.—In the Texas grazing region, from which has sprung, within the last two decades, the entire stock of range cattle of the Western States and Territories, the beef tape-worm is a most common occurrence. In fact, I do not believe I exaggerate when I say that at least every fifth person is afflicted. The cause of this is that on open ranges the eggs of tape-worm are most easily and widely distributed, and hence the cattle more frequently become infested with cysts.

Stall-fed cattle, on the other hand, where the water is usually less subject to contamination, and the food cleaner, are only seldom infected, and hence tape-worm was not so prevalent in regions where the latter were used.

In the last few years, however, the shipment of range-cattle, by means of refrigerator cars, has become the chief beef-supply of the East, and the danger and frequency of tape-worm is greatly increased. Of course no one should stop the use of well-cooked meat on this account, but rare and half-cooked meats can easily be avoided.—*R. T. H.*, *Science*.

DERMATITIS ACUTA PRODUCED BY IMPURE LANOLINE. — Dr. G. Meyer (*Deutsche Med. Woch.*) says one must use a good article of lanoline, else the patient may have an artificial inflammation of the skin produced. The writer's case demonstrates this. A man with swollen testicle was given an iodide of potassium ointment made with lanoline to apply. After making four applications an enormous swelling of the scrotum and penis took place. Upon using a pure preparation the swelling disappeared, but was produced for a second time by again returning to the impure preparation. Impure woolfats contain a very dangerous and irritating substance, and their use should be guarded against.—*Journal of Cutaneous and Genito-Urinary Diseases.*

ANTIPYRIN IN THE TREATMENT OF RHEUMATISM.—(1) It is as efficacious as the salicylate of soda, producing similar therapeutic results, and is less nauseous than the latter, and does not produce headache or ringing in the ears. (2) Usually it acts most efficiently in the most frankly acute cases. (3) Besides reducing by its antipyretic properties the fever and also the pain, it reduces the pain by acting directly upon the nervous system. I administer the drug in fifteen-grain doses, giving it at the height of the disease every four hours, and lessening the frequency of its repetition as improvement occurs.—*Dr. Davis, Journal American Medical Association.*

RENAL CALCULI.—A rare case has come under observation in which a distinguished surgeon is able, with absolute certainty, to produce renal calculi in himself by drinking white wine. Even a quarter of a wineglassful is sufficient. At the end of a few hours violent pains are experienced, and finally calculi are voided. They may attain the size of a pea, and are composed exclusively of uric acid. Symptoms of calculi are never produced if the ingestion of white wine is avoided.—*Eichhorst.*

DRYNESS OF THE THROAT FROM EXCESSIVE TEA DRINKING.—Mr. Phillips Hills calls attention to this symptom, which he says is in himself the earliest and surest sign of excess in the use of tea. He says that some time ago, seeing a patient who was suffering from dry hacking cough and sense of constriction in the larynx, he asked the physician in attendance whether the patient was an excessive tea drinker, and was surprised to find the symptom was not generally known. Have any of our readers experience in the matter?—*London Pract.*

COCAINE IN OPERATION FOR HYDROCELE. Dr. Petit writes to *Le Concours Médical* that before injecting the following solution into the tunica vaginalis:

Tinct. iodin. recent..........	45	parts,
Potass. iodid........	2	parts,
Aquæ destil........	100	parts.

he first injected

Cocaine chlorhydrat........	2¼	grains,
Aq. destil.............	5	drams.

In this way no pain was experienced from the operation.

CREMATION IN CASES OF DEATH FROM YELLOW FEVER IN BRAZIL.—By imperial decree cremation has been made compulsory in Brazil in cases of death from yellow fever. The cost of the crematorium and all other expenses connected with the cremation of the bodies are to be paid by the community.

A VIENNA ORDINANCE CONCERNING HOMEOPATHIC PREPARATIONS.—The *Union Médicale* states that a recent ministerial decree restricts the right to dispense homeopathic preparations to those homeopathic practitioners who really observe the method of dilutions laid down by the homeopathic school. The object of the ordinance is to put a stop to the abuse by which, under the guise of the homeopathic preparations, all sorts of remedies have been given to patients by certain physicians.—*N. Y. Medical Journal.*

ALONZO CLARK, M. D., LL. D., died at his residence, 23 East Twenty-first Street, New York, on September 13, 1887, aged eighty years. Dr. Clark had been for many years Professor of Pathology and Practical Medicine in the College of Physicians and Surgeons, of New York.

PAINFUL MENSTRUATION.—For the relief of the violent pains that in some women precede the menstrual flow, Dr. Meniere, of Paris, gives a warm water enema, containing thirty grains of chloral and thirty grains of bromide of potassium. For young women only half of the above quantities should be prescribed.

FOR PITYRIASIS VERSICOLOR.—Besnier (Journal Cut. and Genito-Urinary Diseases) advises to first wash the parts with tar soap, and apply each night, for eight days, the following ointment:

Lanoline	āā 50 parts,
Vaseline	
Salicylic acid	3 parts,
Precipitated sulphur	10 parts.

MEDICAL JOURNALS.—There are now said to be over seven hundred medical journals published in the different parts of the world. The number is still increasing. Louisville, Ky., publishes a larger number of medical journals than any other city in the world in proportion to population.—*Maryland Med. Journal.*

PHYSICIANS HAVE THE RIGHT OF WAY.—The chief of police of Chicago has issued an order giving the vehicles of physicians precedence at bridges, along with the mail and patrol wagons, ambulances, and fire apparatus.

STATISTICS OF INTUBATION. — Dr. Dillon Brown presents in the New York Medical Record the statistical records of intubation as follows: Total number of cases reported, 806, with 221 recoveries—27.4 per cent.

ROOSA thinks that diseases of the labyrinth are to be differentiated from diseases of the middle ear by the fact that persons so affected hear conversation better than a watch, hear better in a quiet room than in a noise, and who hear the tuning fork better through the air than through the bone.—*American Lancet.*

DR. SAMUEL BRANDEIS, after a sojourn of several months in Europe, returned home on the 11th. instant. He was warmly welcomed by his many friends in the profession and of the laity.

At the regular meeting of the Clinical Society on the 12th instant, the Fellows, in token of their regard, presented him with a gold-headed cane bearing an appropriate inscription. The presentation was made by the president, Dr. John A. Ouchterlony, whose eloquent words of welcome called forth a feeling response from the honored and worthy recipient.

DR. N. SENN says that the trouble with German teachers is that they defer till the end of the course of studies that questioning which should have been done daily.

DR. SENN is of the opinion that on the Continent the best surgical work is frequently done by those outside of the university towns.

A PARIS court has decided that a physician can not raise his fees without giving his patients notice.

THE yearly income of the British Medical Journal is said to be $165,000.

SPECIAL NOTICE.

The attention of our readers is called to the advertisement of Messrs. R. A. Robinson & Co., which appears in this issue. This house is one of long standing, and enjoys a reputation of the highest character. The preparations referred to we commend specially to the notice of practitioners.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. IV. [NEW SERIES.] LOUISVILLE, KY., OCTOBER 29, 1887. NO. 9.

> *Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.*—RUSKIN.

Original Articles.

MATERNAL IMPRESSIONS ON THE FETUS.*

BY T. B. GREENLEY, M. D.

Up to the present century the belief among medical men was general that the fetus was liable to be affected by impressions made upon the mind of the mother during the early months of gestation. But this opinion, since it has been determined by anatomists that there exists no direct nervous intercommunication between the mother and child, has been energetically controverted by many writers. It is also firmly asserted by some anatomists that there is no direct interchange of maternal and fetal blood, that the circulation of the two is entirely separate and distinct, and hence it would be impossible, on anatomical and physiological as well as philosophical grounds, for the fetus to be affected by any impressions made upon the mother, either physical or psychical.

This ground was ably maintained in a paper by Dr. Arch. Dixon, of Kentucky, read before the Tri-States Medical Society at Louisville in 1883, and published in the Indiana Medical Reporter. The doctor is still a firm disbeliever in the effect of "maternal impressions" upon the fetus.

Within the last score of years some prominent men, who had formerly been skeptical in regard to such effects being due to maternal impressions, have become convinced of the verity of such agencies. Among other men of celebrity I will name only Dr. Fordyce Barker, of New York. He recently published a *brochure* on the subject, detailing several cases of striking characteristics, which so strengthened the view of the relation of cause and effect that he became convinced of its truth.

The object of this paper is to give in detail, as briefly as possible, some cases of fetal abnormalities coincidental with maternal impressions which seemed to me to sustain the relation of cause and effect, as well as to refer to some striking instances observed in the practice of others.

CASE 1. The mother of Mrs. D., during the early months of pregnancy, accidentally saw a man with one arm who came to the house, which at the time greatly shocked her, never having seen one before. She was impressed with the idea that her child would be deformed, which proved to be true. It had a stump projecting from the right shoulder with thumb and fingers, which when grown was about four inches long. She could use this diminutive hand in doing a great many things.

CASE 2. Mrs. B., in the first months of gestation, in passing along a road met a couple of bulls fighting, which greatly alarmed her. Her child was deformed, its head presenting somewhat the appearance of the head of this animal.

CASE 3. The mother of Mrs. S. was shocked by placing her hand accidentally on a piece of raw beef which her husband had placed on the table without her knowledge. Her child was marked on the corresponding hand with a spot having the appearance of raw beef.

CASE 4. The mother of M. on going into a menagerie saw a large bear, and was alarmed at its efforts to get loose. The child had a large space on the upper part of her back covered with hair simulating the coat of the bear.

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*Read before the Hardin County Medical Society, September 1, 1887.

Case 5. S. M. has a couple of marks on his left breast resembling sweet potatoes. His mother regarded the marks as being due to her great desire to eat sweet potatoes when sick during her pregnancy, but which were withheld, although in her sight. Her expression was, she honed for them.

Case 6. Mrs. B. saw a coon during her gestation, which frightened her. Her child had a deformed hand, resembling the foot of the coon. The baby is called "Cooney."

Case 7. Mrs. L. met a drunken man who was reeling and falling about, which very much alarmed her. Her child was not physically deformed, but he never walked except with a similar staggering and reeling gait, and with frequent falling. He is now forty years old, and still talks and walks like a drunken man. His mental faculties are quite deficient. I regard this case as one of the most peculiar and striking instances of deleterious effects produced on the offspring by impressions on the mind of the mother on record.

Case 8. There is a child, now about sixteen years old, in Louisville, living on Walnut Street, whose mother was frightened by a fish which her husband brought into the house and threw down at her feet without warning. This child's skin presents all the appearances of that of a fish. The scales are plainly developed—very much like those of a buffalo fish. I saw her when she was about two years old. It was the most striking case of icthyosis I ever saw. The other children are natural.

Dr. Milne, in his work on Midwifery, relates several cases, occurring in the practice of others, illustrating the view of cause and effect.

Case 1. By Mr. Child, M. R. C. S. Saw Mrs. A. in labor, pains lingering; breech presentation. After the hips passed the child was expelled without another pain. On examination, found the head deficient of frontal, parietal, and part of occipital bones. The brain was entirely denuded of skin and membranes. The only hair on it was a little over the eyes. The eyes, palate, and tongue were similar to those of a rabbit. The nails on its thumbs were also like those of a rabbit. The body of the child was well developed and natural. On inquiry the following story was told him: "During the second month after conception the mother went to a penny show, in which she saw a trained horse pull the trigger of a pistol, pretending to shoot a rabbit. A dummy was then thrown out; the back of its head was bleeding, having to all appearance been shot off." This corresponded, as the mother declares, to the mark on the child's head. She seems never to have forgotten the circumstance during the remainder of her pregnancy, and was greatly frightened at the time. The child was born dead.

Case 2. This case is reported by Dr. J. W. Metcalfe, of Geneva. A lady of highly nervous and excitable temperament was, when in the fourth month of pregnancy, at a railway station, addressed by a man who persistently placed his face near her, much to her annoyance, this person having lost his nose and being a very repulsive object to look at. At the time, and up to the day of delivery, which was the eighth month, my patient had many times expressed to her husband and others a fear that the child would be affected, she being more anxious owing to indescribable feelings at the time she was spoken to. Besides being premature, the labor was long and distressing. The child was well formed except in the parts affected. It had double hare-lip, cleft palate, and deformed nose. The mother's exclamation before knowing the state of the child was: "It will be deformed!" Nor was she surprised on learning the truth, saying, "I expected it."

Case 3. This case is recorded by Dr. J. S. Steele, of Salford. I was called to attend Mrs. C. of this town. There was nothing remarkable about the labor, which was completed in a few minutes after my arrival; but on examining the child's hand there was a deficiency of all the fingers and thumb, and in their places small bended pieces of integument like small toes, two of which had perfect nails. On questioning the mother, she distinctly recollected, during the early months of her pregnancy, a beggar-man coming to the door, and as soon as she opened it he drew his hand, destitute of fingers, suddenly out of his coat, and held it up before her, which gave her such a fright that it was sometime before she got over it. She said it was the man's left hand.

CASE 4. There is a case reported by Dr. F. H. Dailey, in London Lancet, 1869. His description is as follows: At 3 o'clock on morning of 4th of June I was summoned to a lady, my partner's patient, he being unwell. On examination I found the os dilated to about the size of a crown-piece. After waiting a while I ruptured the membranes and found transverse presentation. I therefore immediately passed my hand, got hold of both feet without force or difficulty, and turned the child. The next pain completed the birth. The child was dead. My patient at once inquired if it were dead, and when I told her it was, she asked if it were all right. I, of course, told her to keep quiet, and wrapped the child in the flannel; but she again persisted, "Has it got any mark like a rat?" I said I would see. When the mother was made comfortable, I took the child into another room and examined it. It was a most horrible monster. The body and limbs were natural, but there was no neck, the head being placed immediately between the shoulders with the face upward. The resemblance to a rat was most striking. On questioning the mother, she informed me that at the time of the conception, and for about three months afterward, she lived in a house infested with rats. To use her own language, "Wherever she turned she saw a rat," and always said the child would be marked.

Dr. Earle, of Chicago, reported a case for Dr. Haven, to the Gynecological Society, as follows: A woman, aged nineteen, married, of unusual nervous temperament, slight build, yet sensible, educated, and attractive; she called at his office 8th of September, 1885, to consult him with reference to her condition. Found her to have been regular in her monthly periods up to the 21st of July. Physical signs point to pregnancy in the sixth week. A few days later saw her again. She was nervous and greatly excited, almost hysterical. She told him in an excited manner that a dog had jumped on her, and that she "hated dogs." She complained of pain in abdomen low down. From that day until 1st of November Dr. Haven saw her several times Each time she was threatened with miscarriage, and each time declared she never could carry that child. Her mind seemed to dwell continually on the dog, asleep or awake, and frequently wondered if the child would be marked Her husband said she had always had a great horror of dogs, and always endeavored to avoid meeting them. Dr. Haven was called on hurriedly on 1st November, at night, to see the case. On examination found Mrs. D. was about to abort. The history of the abortion was the usual one. The result was a fetus resembling very much a pup. On seeing it she declared that it was the image of the dog that had frightened her.

At the meeting of the American Gynecological Society at Baltimore, September, 1886 (New York Medical Journal), Dr. Barker read a paper on fetal deformities, in which he related five cases which he regarded as being due to mental impressions on the part of the mother. The first case was that of a young lady who, after attending a theatrical performance of Sothern, in the part of Lord Dundreary, spent a great deal of her time in writing to Lord Dundreary, and thought and talked of nothing else. This continued for several months, but under the influence of treatment and change of scene had gradually worn away. She subsequently married, and four years after her attack of insanity her first child, a boy, was born. As the child grew older he exhibited peculiarities resembling those of Lord Dundreary. He walked with a little skip, had a a slight stammer in his speech, and his left brow was drawn down with the lids practically closed.

The second case was that of a lady, a typical brunette, who was first married to a gentleman of light complexion. She was never pregnant by him. After his death she married a man as dark as herself. Her first child was decidedly light. The lady had three more children, all dark.

The third case was that of a lady who, during the first months of pregnancy, had been much worried over her oldest daughter, who had had her ears bored for rings. The ears had become inflamed and caused much trouble. When the child was born both ears presented the appearance of having been pierced for rings, and through one of the lobes a thread could be passed.

CASE 4. A lady at a very early period of pregnancy had been much impressed by seeing three ladies with hare-lips. When her child was born it had a double hare-lip.

CASE 5. Mrs. X., married but three weeks, was at the theater with her husband. Something vexing him, he had placed his elbow on her hand and held it so firmly she could not draw it away. Not wishing to make a scene she bore it until she fainted. The fingers were much swollen and painful for several days. She never lived with him afterward. Thirty-five weeks and three days after the incident she gave birth to a son. On the left hand the first and second phalanges of all the fingers and thumb were absent, looking as if they had been amputated.

Dr. Goodell related the following case: A physician was called to assist at the operation of circumcision. His wife, who was in the early months of pregnancy, was much interested in the operation, and insisted on hearing all the details of it. When her child was born, a boy, it was found that the glans was exposed, and the prepuce well retracted, with granulating edges, showing the appearance very similar to that of recent circumcision.

Dr. Busey believed there was some relation between mental impressions and fetal deformities. Any prevalent and concurring belief must be based upon an element of truth. If there were any number of cases by which a precise correspondence between the impression and the deformity could be shown, the relation must be accepted as presumptively proved.

A singular case of mental impression is reported by Dr. Swift in Alabama Medical and Surgical Journal, November, 1886, and occurred later in pregnancy than any case on record, as far as I have observed, being scarcely three weeks before delivery. "Mrs. X. was in last month of second pregnancy, which had advanced thus far without event. Her son, about four years old, while playing in the stable, shut the door on his left thumb, and immediately ran to his mother, shrieking with pain and holding up his hand for her to see. She was of course much affected, and was particularly impressed by the fact that the nail had turned black immediately, from which she inferred that the injury must have been very severe. The child was in great pain, and his mother held the thumb in her hand bathing it for an hour. Mrs. X. was confined in less than three weeks after the accident, and the baby's right thumb presented an appearance identical with that of its brother's left thumb. Three weeks later the thumb nails of both children came off within twenty-four hours of each other, and the thumbs afterward followed the ordinary course of such injuries, in each case new and perfect nails forming and growing."

Many more cases might be cited illustrating coincidences existing between impressions made upon the mind of the mother and deformity of the fetus, but those given are sufficient to demonstrate the truth of the position under consideration.

Since writing the above, I notice the opinion of a distinguished philosopher, Lotze, who says "that the phantasy of the mother can impart to the child the features of a picture that has made a strong impression on her, I can not regard as impossible in view of undeniable facts." Also the remarks of Prof. Parvin, one of our ablest *accoucheurs* and gynecologists, in a lecture on the Hygiene of Pregnancy: "We may reject many of the cases adduced as evidence of 'maternal impressions,' because they are mere fables, or otherwise more readily explained; nevertheless there still remain a large number which can not be cast aside, and the simplest explanation is that which has been proposed. Of course those who deny this influence rest their argument chiefly upon the fact that there is no nervous connection between the mother and the child in her womb, no nerve paths along which impressions may travel from her brain to it. But the first duty of science is to ascertain facts, and not reject them because we do not see how they are caused."

The ground taken by those who are skeptical in regard to maternal impressions producing effects on the offspring is based on the presumption that there is neither nervous nor circulatory communication between the mother and child. Most anatomists say no nerves have been traced from mother to child, and some say there is no direct communication of blood-vessels between the uterus and fetus. On this subject there has been much controversy. Some of the ablest observers assert that blood from the mother is sent directly to the fetus through continuous vessels. Others maintain that the mother's blood passes by absorption into the system of the fetus. There are some again who hold that the maternal blood is poured into certain cells placed on the maternal surface of the placenta, and that while lodging in these cells the fetal vessels re-select or choose or remove from it whatever is needed for the sustenance of the fetus. This was the opinion of the Hunters. Lastly, another school believe that the fetal vessels are in close apposition with those of the mother, but that the maternal blood does not enter the placenta at all.

The view now most generally held, which accords with that of W. Hunter, is that the placenta is divided into two parts, the maternal and the fetal, thus forming two separate and independent circulatory systems, and no single and continuous stream. First on the fetal side the umbilical arteries terminate in the umbilical veins, and on the maternal side the blood of the mother is poured by the curling arteries into certain cells, from which it returns to the mother again by the uterine sinuses or veins. In these cells the fetal placental vessels dip, and thus the blood is acted on by that of the parent. Two currents, then, but quite distinct, are interchanging good offices through a membranous wall. In this way, it is said, the fetus derives its nourishment as well as its oxygen from the mother, the placenta serving as both lungs and stomach for the embryo.

Where there are so many opinions in regard to the maternal and fetal circulation, and by equally able observers, there may yet be some doubt as to the correct theory. When we reflect that the fetus has to derive its sustenance from the blood of the mother by endosmosis, and give off its impurities by exosmosis, some doubt or mystery naturally attaches itself to the subject.

If it could be fairly elucidated that there is direct interchange of blood current between mother and child, the oxygenation of the fetal blood would be much more simplified. Whether there is direct communication or not, we know that in placenta previa both mother and child are liable to be lost by hemorrhage from separation of the placenta.

As to whether there is any nervous intercommunication between the mother and child, we all know that the child can be shocked through the medium of the mother. If you place a cold hand on the abdomen of the mother after the sixth month of pregnancy, you will immediately very sensibly be impressed by its movements.

It may be impossible to explain scientifically how mental impressions on the part of the mother can affect the child *in utero*, as some other phenomena in nature can not be accounted for philosophically. We know that the child frequently strikingly resembles its father in some of its features, yet this resemblance can not be said to have been contributed by mere contact of the spermatozoa with the ovum of the mother. Would it not better be accounted for by the image of the features of its father being impressed on the mind of the mother at the time of impregnation? Copulation is a mental as well as a physical act, and the impress on the mind of the mother may be of a lasting character. This idea has been illustrated in one of the cases cited in this paper, and we also have it illustrated in the instance of the Arabian mare that had her first foal by a quagga, and, notwithstanding she was bred to fine horses afterward, her foals still resembled in some particulars the quagga. The picture of her first love was still retained in her memory. Then, again, we are unable to say why the embryo receives exemption from certain diseases after birth by the mother having them during gestation. Again, how are syphilis and phthisis communicated to the offspring through the semen of the father? If these diseases are due to bacilli, then it is clear that microbes find exit from the body by way of the testicles, and are therefore in one sense of the term a secretion. Again, how can we account for the impress made on the child who is begotten when its father is on a drunken debauch? Is it not through the mind of the mother? Of course the ovum is not impregnated with whisky.

WEST POINT, KY.

A POSOLOGICAL STUDY.*

BY CHARLES W. MURPHEY, M. D.

Posology may be defined as that branch of medical science which treats of the quantity or doses of the various therapeutic agents used in the treatment of disease.

This subject is frequently ignored by many excellent authors of works on practice, and has never received the attention that its importance demands. They give a detailed and systematic history of the disease under consideration from the time of Hippocrates to the present, devote many pages to the various hypotheses of its pathology and causation, but when they come to the last and most important of all—the treatment—content themselves by simply enumerating the various remedial agents found useful in its management.

In pursuing this plan these authors deprive us of valuable information, which they of all others are best able to impart, since the works devoted to materia and therapeutics follow only general principles in the matter of doses. In many instances the dose as given by these works is too small; in others it is too large.

Dosage is never an insignificant point in treatment, and words are not thrown away in giving detailed descriptions of the frequency of the doses and the most palatable mode of administering medicines; for it is attention to these little details that often secures success to the physician in a given case, while failure is due not so much to an erroneous diagnosis, or even in the administration of improper remedies, as to the fact that the medicines are badly put together or given in quantities too small or too large to accomplish the desired result.

Dosage should be regulated, not according to age and sex only; but temperament, idiosyncrasy, and the complications and stage of the disease existing should be made factors in the problem. Every thoughtful practitioner therefore studies each particular case and varies the dose according to the indications presented by it.

But the works devoted to therapeutics are in the main deficient in examples illustrative of this study, which makes it all the more desirable that the authors of standard works in practice should give the subject the needed attention. It has been proved by trial that the difference in effect between a large and an average dose and a very small one is often very marked, and that in different doses the same remedy may be used in very different diseases. Thus is the realm of therapeutics greatly widened.

Tincture of cantharides, which in doses of ten or twenty drops causes irritation of the urethra, and perhaps strangury, in doses of one drop or less is one of the best of all remedies for producing sedation of irritation in the prostatic urethra and the neck of the bladder.

Aloes, which has long been known to have a selective and irritating action on the rectum, in large doses producing hemorrhoids or even prolapsus ani, has more recently, in minute quantities, entered successfully into the therapeutics of these respective maladies, to say nothing of its value in chronic constipation.

Calomel, potent for evil and for good, may be given in variable doses producing widely different results. As a purgative it has often been given in ten-grain doses; but recent experiments prove that five grains are sufficient to exhaust the solvent power of the system, the remaining five grains passing through the alimentary canal unchanged. Yet, in twenty- to thirty-grain doses, calomel is said by some to have a local sedative influence upon the stomach, with no more cathartic effect than it will produce in a very small dose. In the intractable forms of nausea and vomiting belonging to the tropical diseases, as cholera, yellow fever, and malignant malarial fevers, it is given in large doses with great success. Calomel being insoluble, and in these cases the function of absorption being almost suspended, large doses may be given with impunity, the drug passing out of the bowels very much as it entered, and producing scarcely any more effect upon the general system than so much chalk. Upon the other hand, calomel may be given with signal benefit in very minute doses (one twelfth to one twentieth of a grain every half hour or hour) in diseases characterized by vomiting; notably is this true in cholera infantum.

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*Read before the Washington County Medical Society, August 1, 1887.

The doses of bromide of potassium and ergot as laid down in the books are no guide to the successful treatment of many affections. The difference between a dose of ten or twenty grains and of one or two drams of bromide of potassium, or of any of the bromides, not only in epilepsy but also in many of the functional nervous diseases, is the difference that lies between no effect at all and the prompt relief of often ugly symptoms. In nervous excitement, some forms of neuralgic pains, and in the hyperemic form of migraine, ten-, twenty-, and thirty-grain doses of any of the bromides will fail of the purpose, while a dose of one hundred or one hundred and twenty grains, repeated if necessary in an hour, will be followed by excellent results. Ergot, in the old fashioned dose of ten to twenty drops of the fluid extract, does little good in nervous affections or in securing contraction and retraction of the uterine muscular fiber; but, given by the teaspoonful, or as ergotine, five or ten grains hypodermically, it is one of the most successful agents in therapeutics.

Similarly, iodide of potassium in tertiary syphilis must be given frequently in enormous doses to cure the disease or control the symptoms. The same is also true of muriate of ammonia in certain chest affections.

Subnitrate of bismuth, an excellent remedy in many derangements of the gastro-intestinal tract, is often given in insufficient doses. As bismuth in nature is commonly found associated with arsenic, it has caused many physicians to refrain from prescribing it in the large doses recommended by some authors, but as special pains are now taken in its manufacture to separate this objectionable impurity, it may be given in very large doses with impunity. Dr. Monnerat has often given as much as ten to sixty grams a day without any recognized ill effects; while this quantity is excessively large, it clearly demonstrates the innocuousness of a pure article of bismuth. Of course its action is chiefly local. J. Lewis Smith, of New York, recommends it highly in the diarrheas and gastro-intestinal inflammations of children in large doses. To a child one year old he would give ten or twelve grains as often as every three hours.

What is true of these useful and familiar drugs is even more directly and demonstrably true of electricity. The dose of electricity in the present state of science can not be mathematically stated; the location, stage, and nature of the trouble, the kind, intensity, duration and frequency of the application of the current, must all be taken into consideration by the intelligent and discriminating physician. The current may be too strong or unduly prolonged, and thus produce evil rather than good effects; and again, the application may be too mild when a stronger one could well be borne, and in consequence the patient be deprived of the desired benefit. The scientific study of the dosage of electricity widens the range of its uses, and at the same time makes our electrotherapeutics more precise and satisfactory.

Strychnia in paralysis, gastralgia, and other nervous troubles, is in many cases never felt at all until it is pushed to a dose much above the maximum of the books, or until there is severe twitching of the muscles with head-symptoms. Dr. J. M. Ray, of Louisville, read a paper at the last meeting of the Mitchell District Medical Society, which illustrates the importance of pushing this remedy until its physiological effects are obtained. He recited a number of cases of amblyopia, and other visual disorders due to the excessive use of tobacco and alcohol, which only yielded to the strychnia given in large doses hypodermically. On the other hand, very minute doses are useful in controlling some forms of vomiting. One half to one drop of the tincture of nux vomica should be given every ten minutes until relief is obtained.

The dosage of arsenic which secures the best success in different maladies is variable. In chronic skin affections, as psoriasis, pityriasis, pruritis vulvæ, eczema, and in chorea, gastralgia, and chronic malarial poisoning, this remedy, in the form of Fowler's solution, should be pushed until it produces some of its physiological effects, as redness of the conjunctiva, slight edema of the eyelids, pain in the epigastrium, or diarrhea. In these cases it is best usually to commence with three- or four-drop doses, increasing the dose by one drop each day, or alternate day, until the characteristic symptoms are produced, when it should be suspended for two or three days, or the dose diminished in the manner of its previous increase. Many failures in the treatment of the above-mentioned maladies may be attributed to the use of arsenic in insufficient doses. Children bear a larger proportionate dose of this remedy than adults. If arsenic is given for the vomiting of pregnancy, irritative dyspepsia, some forms of chronic diarrhea, or chronic gastric catarrh, the dose should be small, say one drop before each meal. Large doses in these maladies would only be adding fuel to the fire.

Podophyllin in large and small doses acts contrariwise. One grain in one dram of alcohol, used by the devotees of homeopathy, in three drop doses, in the treatment of children suffering from constipation with clay-colored stools, often succeeds admirably. And, paradoxical as it may seem, this same remedy, given as above for chronic diarrhea in children, will sometimes bring about a cure when all other remedies have failed.

Quinia is given in many ways and with great latitude of dosage. Some physicians will give three or four grains every three or four hours to break up intermittent fever, but the better plan is to give one or two stiff doses four or six hours before the expected paroxysm. If two doses are given, say two hours apart, the dose should be eight or ten grains. Given in this way it brings the system profoundly under the influence of the drug, and will succeed when smaller doses given at longer intervals fail. As an antipyretic in typhoid and other fevers, the dose is twenty to thirty grains. Being a powerful depressant of the circulation and not always safe or efficient, its use in these large doses is rapidly giving away to antipyrin, and especially antifebrin, which is now considered the safest and most efficient means of reducing a high temperature from any cause.

The above list of remedies could be measurably extended, but it will suffice to illustrate the importance of the study of posology in the management of disease.

SALEM, IND.

A CONTRIBUTION TO THE STUDY OF THE THERAPEUTICS OF PULMONARY TUBERCULOSIS.

BY WILLARD H. MORSE, M. D.

Viewing tuberculosis as an infectious disease dependent upon the absorption and culture of the bacillus tuberculosis, it is a matter of interest and importance to discuss the measures which are at our hand to govern the extension of the propagation concerned; a work than which there is none more in the true spirit of the healing art or more consonant with the principles of the most elevated philanthropy. Volumes have been written and more than volumes have been spoken on the general subject of the treatment of a disease, notable not alone because of its frequency but as well for its destructiveness to life, its often absolute hopelessness and the dark shadows which lie upon life here and there from its baneful touching of the territory of mind. Remedies have been brought forward, and one by one have found to be failures—our hands full of them, and yet tuberculosis patients die under our care by the legion.

It would be unprofitable to undertake a review of the therapeutic measures which have been and are employed under the guidance of varied pathological views. The busy practitioner has no time to read such matter, and the ultra theorist has no heart to venture hypotheses where the expressions of ideas form a subject of such practical, nay vital, importance. We can, however, justify ourselves in reasoning by induction and in consideration of facts and measures of the worthiest type. There are remedial measures which are the superior of others, and which, proved by the different phases of a many-phased disease, have not been without influence. If such measures are applied, and if to each phase there is a remedial application, reason might teach that by a judicious combination of these we may hope to be nearer to successful treatment than is made possible otherwise. At least it can not be an ill-timed work to discuss the principal agents in treatment with brevity and with a view to a rational combination.

Such agents are auxiliary to all such others as fall under the head of hygiene, and relate to diet, change of climate, open-air exercise, clothing, and mental encouragement, and are in addition to that further management which has to do with alcoholic stimulants and the different tonic remedies, expectorants, and palliative measures for certain complications. We may not concern ourselves with other than these direct measures for the prevention of the propagation of the bacillus, of which the chief are four, namely, cod-liver oil, the hypophosphites, medicated gaseous enemata, and the parenchymatous injection of the biphosphate of lime.

With the two first-named measures we enjoy the acquaintance of years, with the others that of months alone. Cod-liver oil came first into general notice in 1841, the hypophosphites in 1858, and the measures most modern in 1886 and 1887. We honor successively Bennett, Churchill, Bergeon, and Kolischer.

The demand is for healthy pulmonary tissues of such a character as to resist in a measure the encroachments of the bacillus, and for the repair of the tissues which have suffered such encroachments.

Let us see if this demand is not gratified by the agencies considered.

1. The hypophosphites provide to the tissues the element of phosphorus, the bacillus declining attack upon tissues where this element is normally present or orificially supplied.

2. Cod-liver oil, in consequence of some resident peculiar principle or principles, produces or preserves healthy tissue, but only as adjuvant to the hypophosphites.

3. Gaseous enemata control suppuration and give the lesions an opportunity to undergo cicatrization.

4. The parenchymatous injection of the salt of lime causes calcification and cicatrization of the lesions.

In fine our methods are but two, prophylactic and curative. Our objects are simply three, to produce healthy tissue, to control suppuration, and to promote cicatrization.

Strictly speaking, the four measures combine in one. Cod-liver oil does not manifest its conservative influence where phosphorus is absent from the tissues, and as this element is most frequently wanting it is patent that we do no violence in putting the hypophosphites at the head of therapeutic measures. Moreover, the injection of the biphosphate of lime is to serve the same purpose as the use of the hypophospites, and is justly adjuvant to the use of that measure. The outcome is a recognition of the fact that the hypophosphites lead in treatment, and an unquestioning acceptance of the theory of Churchill, modified of course so as to read, "The bacillus tuberculosis shuns the tissues where phosphorus abounds." Though hygienic measures be invariably indicated and cod-liver oil be not infrequently required, the hypophosphite is the remedial factor that stands at the head.

I am not unaware of the unpopularity of the hypophosphites in some quarters. But there is a good reason for this. We forget that the world has moved since the days of Churchill. He combined the hypophosphites of calcium, sodium, iron, potassium, and ammonium; and those who put aside the consideration of antagonisms and use this combination are necessarily disappointed. Again, those who consider that there is any considerable value in the hypophosphites of potassium, iron, and ammonium, find disappointment, and to such an extent that it is safe to say that those who condemn the measure have only had experience with the syrups and other compositions having these as principal elements. Practically it is the hypophosphites of lime and soda that are alone of value, and it is the syrup of these two hypophosphites as prepared according to the most approved formula, since only by using legitimate and chemically pure preparations can success be attained. Some of the so-called hypophosphites in the market are not true to name, are manifestly impure, and are not only without affinity for oxygen but adulterated as well. The non-success of those who condemn the agent is due to the use of these impure preparations, and the success of those who praise the agent is due to the use of the syrup of the two potential salts indicated.

It is not necessary to refer to the inutility or inertness of three of the five salts which Churchill commended, now that we study them in the light of our knowledge of the propagation of the bacillus tuberculosis. On the other hand it is hardly necessary to give any reasons for the faith in the calcium and sodium salts, which faith we cherish.

There is procured a rational deoxidation, and there is given the three-fold influence of phosphorus, lime, and sodium. There may be noticed a hindrance of the retrograde metamorphosis of tissue, a promotion of assimilation and nutrition, a neutralization of any free acids, an oxidation of the albuminous elements of the blood, and certain other physiological actions not material to the treatment under consideration. Finally the vitalizing constituent, phosphorus, is secured to the tissues, other nutrition being provided assuredly by cod-liver oil when required. It will be apparent that, in the prophylaxis of pulmonary tuberculosis and in the earlier stages of the disease, tissue may be produced which shall contain sufficient phosphorus to repel the bacillus by the use of the salts referred to, and the auxiliary oil if necessary. But what have we to write of the later stages of the malady? Dr. John Dixwell says, "Even in the third stage of phthisis an evident prolonging of life is recorded." Professor Lynch, of Baltimore, says that although his expectation of benefit is lessened in the later stages, he finds improvement and lengthening of life. My own opinion is such that I expect much even in the stages where there are cavities. I would continue the treatment without an interrupted day, but— And here come in our third and fourth facts. Though the continuance of the treatment is not to be questioned, we have to consider that, in addition to providing healthy tissue, we have to control suppuration and promote cicatrization.

Without entering into any lengthy consideration of the treatment devised by Dr. Bergeon, of Lyons, let me say emphatically that it has my strongest faith. Its beneficial effects on the septic and suppurative surfaces are excellent, the consumption proper, the exhaustion, being due to the suppuration and consequent septicemia. At another time I may report my success with this treatment, but at this time it is but necessary to say that it fulfills the theory.

Of Kolischer's method of supplying the tubercular foci with the salts of lime so as to calcify the tubercles and effect a cicatricial shrinking of the nodules, it is enough to say that the theory is perfect and that the promises are good.

In conclusion, I look for no remedy of future discovery, but relying on early diagnosis, tonics, stimulants, and care of complications, I place confidence in the proved measures which produce healthy tissue, control suppuration, and promote cicatrization. Be the stage of the disease early or late, we can fulfill the indications by these as by no other methods.

WESTFIELD, N. J.

Societies.

DUBOIS COUNTY MEDICAL SOCIETY.*

Stated Meeting October 18, 1887.

Dr. G. L. Parr reported a case of obstinate vomiting of several months' duration, occurring in a child ten months of age, in which every thing, as the parents expressed it, had been tried without any relief. There were no symptoms of indigestion, no tenderness over the stomach or abdomen, no emaciation, no irritable condition of the nervous system. The bowels of the little patient were acting properly and the urine was normal. Being in doubt about the cause of the vomiting, the doctor concluded to try bismuth and pepsin, which, however, did no good. Mercury and chalk was now ordered, followed by a full dose of castor oil. The father reported the next day that the child was relieved, and that he had the cause of the persistent vomiting in his hand. It was the brass head or top of a fan which the child had passed by the rectum. It was now remembered that in January previous (this was in April) the infant had been left playing with a fan, and shortly afterward was found in convulsions, which lasted for some time. The absence of the brass top of the fan was not noticed at the time. The doctor then passed the brass trinket around. Its size and shape bore ample testimony to the infant's mastery of the art of deglutition.

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*Reported by Dr. E. J. Kempf, Jasper, Ind.

DISCUSSION.

Dr. W. R. McMahan thought the brass trinket was not lodged in the stomach in the pyloric orifice or near there, as some of the members had suggested, because it was not corroded; but that it evidently had been arrested somewhere between that orifice and the ileo-cecal valve. That the vomiting was reflex, and that the attack of convulsions was of the same character there was no doubt.

A case of acute yellow atrophy of the liver was reported by Dr. W. R. McMahan: Mrs. Anderson, a lady thirty years of age, three months pregnant, appetite good, bowels regular, urine normal in quantity and containing no albumen, consulted me about the yellow tinge of her skin and the conjunctivæ. On examination I found the liver about normal. I diagnosed her trouble a case of catarrhal jaundice, and prescribed a dilute muriatic-acid mixture. A week afterward the jaundice, if any thing, was worse. I discontinued the muriatic acid and ordered bicarbonate potash and fluid extract taraxacum. Another week found my patient again a little worse than before. No tenderness over the liver. Treatment continued.

The patient now became constipated and I ordered elixir purgans. After two weeks, during which the patient gradually became worse, violent delirium came on. Hepatic dullness was now found to have almost disappeared and the liver decreased fully three fourths. Urine and feces passed involuntarily, and I could not examine the urine for bile pigment. The delirium lasted for thirty-six hours, after which the patient died. No *post-mortem.* Just before death the fetus was expelled.

Dr. W. R. McMahan, in closing the discussion, said acute yellow atrophy of the liver occurs between the ages of twenty-five and thirty-five, that seven tenths are females, and that the disease happens generally during first four months of pregnancy, and that the disease is always fatal. Flint, the elder, collects eighteen cases, all fatal. Fortunately the disease is not very frequent.

IN England scarlet fever killed over 17,000 persons last year.

Reviews and Bibliography.

Cyclopedia of Obstetrics and Gynecology. Volume ix. Diseases of the Female Mammary Glands, by Th. Billroth, M. D.; and New Growths of the Uterus, by A. Gusserow, M. D. One hundred and five fine wood engravings. Edited by Egbert H. Grandin. Pages 426. New York: Wm. Wood & Co. 1887.

When Wm. Wood & Co. began their library set for 1887 with the master work of Charpentier, it seemed impossible to sustain the character of the set to its close by even drawing upon the whole of recent medical literature for material. These volumes, however, amply prove that the enterprising publishers have been fully equal to the undertaking up to near the close of the enterprise. With the names of Hegar, Gusserow and Billroth there need go no introduction and no encomium. Their teachings furnish a source of knowledge sought and prized throughout the world of medical science. In these two volumes apparently every known form of disease and deformity in the departments to which they relate are treated succinctly and exhaustively.

Transactions of the Indiana State Dental Association. 1887.

On the Treatment of Felon without Incision. By L. Duncan Bulkley, M. D. Reprint.

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Practical Urine-Testing: A Guide to Office and Bedside Urine Analysis, for Physicians and Students. By Charles Godwin Jennings, M. D. 16mo, pp. 124; cloth. Detroit: D. O. Haynes & Co. 1887.

A Manual of the Physical Diagnosis of Thoracic Diseases. By E. Darwin Hudson, jr., A. M., M. D., Professor of General Medicine and Diseases of the Chest in the New York Polyclinic. 8vo, pp. 150; cloth. New York: William Wood & Co. 1887.

Intubation of Larynx. Papers read before the N. Y. Academy of Medicine, June 2, 1887, by A. Jacobi, Joseph Odwyer, Francis Huber, Dillen Brown, W. P. Northrop, J. H. Hann, and A. Caille. Reprint.

Lessons in Gynecology, by William Goodell, A. M., M. D., Professor of Clinical Gynecology in the University of Pennsylvania, etc. Third edition; one hundred and twelve illustrations. 8vo, pp. 579; cloth. Philadelphia: D. G. Brinton. 1887.

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Surgery: Its Theory and Practice. By William Johnson Walsham, F. R. C. S., Assistant Surgeon to St. Bartholomew's Hospital, etc. Two hundred and thirty-six illustrations. 12mo, pp. 655; cloth. Price, $3. Philadelphia: P. Blakiston, Son & Co. 1887.

Insanity: Its Classification, Diagnosis, and Treatment. A Manual for Students and Practitioners of Medicine. By E. C. Spitzka, M. D., President of the New York Neurological Society, etc. 12mo, pp. 423; cloth. Price, $2.75. New York: E. B. Treat. 1887.

Differential Diagnosis: A Manual of the Comparative Semeiology of the more Important Diseases. By F. de Havilland Hall, M. D., Assistant Physician to the Westminister Hospital, London. Third American edition. edited by Frank Woodbury, M. D. 8vo, pp. 255; cloth. Philadelphia: D. G. Brinton. 1887.

New Journal. We have received a copy of a new candidate for the favor of the reading public, entitled "The Open Court," a fortnightly journal devoted to the work of establishing ethics and religion upon a scientific basis. The Open Court numbers many eminent names among its contributors, and is an exceedingly well-conducted journal.

Diseases of the Female Mammary Glands. By Th Billroth, M. D., of Vienna. New Growths of the Uterus. By A. Gusserow, M. D., of Berlin. Illustrated. These two works constitute vol. ix. of the "Cyclopedia of Obstetrics and Gynecology" (12 vols., price $16.50), issued monthly during 1887. New York: William Wood & Company.

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Cyclopedia of Obstetrics and Gynecology. Vol. vii. A Hand-book of General and Operative Gynecology. By Dr. A. Hegar, Professor of Obstetrics and Gynecology, University of Freiburg, and Dr. R. Kaltenbach, Professor of Obstetrics and Gynecology in the University of Giessen. In two volumes. Vol. ii. Two hundred and forty-eight wood engravings. Edited by Egbert H. Grandin, M. D. 8vo, pp. 354; cloth. New York: William Wood & Co. 1887.

Correspondence.

PARIS LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

A scientific writer in one of the daily papers of Paris makes the following reflections with reference to mesmerism, or, as it is now termed, hypnotism, which is becoming so much in vogue of late in this country: "Medicine, which was formerly in darkness and which is now in about semi-obscurity, will it return to its primitive state? This is what I fear. It is well known that among the savages of all parts of the world, sorcerers or doctors cured their patients by making them wear a satchel containing different substances, such as the powder of toads or of rattle-snakes, of the musked dung of the crocodile or of dried plants. It is known also that there are persons in Europe and even in Paris who are still in this superstitious ignorance, and whose pockets are always furnished with a chestnut, an infallible remedy it appears against rheumatism. Our doctors of the present day seem to be following in the same steps. Dr. Luys, an *Agrégé* of the Faculty of Medicine of Paris, so well known for his works on the brain, has adopted some new theories enunciated by Drs. Bourru and Burot in the art of therapeutics. These gentlemen pretend to produce certain therapeutical effects with medicinal agents which, aided by "suggestion," have the power to act at a distance from the patient or from the part of the body to which they may be applied. For instance, to produce a blister it is sufficient, according to these authors, to hold a Spanish fly near the arm of a patient without touching it; and he may be purged simply at the sight of a bottle of castor oil held up before him. This idea is certainly incredible if not absurd, but emanating as it does from such authorities must be my apology for noticing it here. Drs. Bourru and Burot have also produced under the same influence effects still more incredible. They caused burns with corrosive substances by simply holding them at a distance; brought on convulsions by simply getting the patients to contemplate a nux vomica seed, and inebriating others by allowing them to delight themselves at the sight of a bottle of brandy. These facts have actually been communicated to the Paris Academy of Medicine by Dr. Luys, who is also physician to the Salpétriére Asylum, but they appeared to savor so much of the marvelous that the learned assembly showed evident signs of incredulity, and ordered a commission to investigate the matter. The result is not yet known, but it may be observed that these extraordinary results have been obtained on hysterical patients who have been hypnotized or put into a state of somnambulism; whence it may be concluded that the facts observed are of a psychical nature, and require to be studied in a special manner before one can judge of its merits as a therapeutical agent. Meanwhile the influence of "suggestion" is being demonstrated in a variety of pathological conditions, although they all partake more or less of the nervous character. Dr. Bernheim, of Nancy, who has especially devoted his attention to this subject, stated at the annual meeting of the French Association for the Advancement of Science recently held at Toulouse, that several cases have come under his observation, directly or indirectly, of the cure of suppression or other irregularity by this method.

He related the most recent case of a woman, aged thirty-five and a mother, who had for a long time been subject to metrorrhagia occurring about every fortnight, but by the simple means of hypnotic suggestions not only were the intervals extended to four weeks, but the duration of the attacks was reduced from five or six to three days, and this function had so continued normally for several months. It may be interesting to note here the exclusive influence of suggestion in regulating the menses in the case of this patient without the aid of any other therapeutical agent. Dr. Bernheim states that in the earlier periods after suggestion the patient did not reach the day desired, but there was a tendency to do so. At the first period the habitual precursory symptoms showed themselves about the 11th day, the period when the menses should have appeared without the intervention of suggestion; then, about the 22d day, symptoms analogous to those of pregnancy accompany the prolongation of the amenorrheaic period. Suggestion produces the act of inhibition until the 26th day, then gradually the organ comes under this influence to regulate the menstrual molimen to the 28th or 29th day. Other speakers related similar cases, and all the patients so treated were more or less the subjects of hysteria. One of the members present suggested that many of the so-called miracles may be explained by the influence of the above-named process.

Velpeau, the celebrated surgeon, described in his writings, under the name of imaginary tumor of the breast, an affection causing the greatest anxiety to both patient and doctor. The malady was attended with a severe pain at first and then followed by a lesion to which it was difficult to assign an anatomical character. Recalling to mind this fact, Professor Verneuil brought to the notice of the Academy of Medicine a pathological condition somewhat analogous to the above but only in a different part of the body, to which he has given the name of "imaginary ulceration of the tongue." This affection, like the former, is accompanied by intense pain, and consisting of a pseudo-lesion which is often taken for a wound or ulcer. This affection, like the former again, has a most pernicious influence on the mind, as the subjects of the malady invariably imagine that they are stricken with cancer. He admits that the pathology of this affection is very obscure, but is inclined to class it among neuralgic maladies. He illustrated this view by an example which only recently came under his notice. It was that of a lawyer, aged forty-three, who suffered from severe pain in the tongue, which was at first very circumscribed, but latterly extended over half of the tongue, rendering mastication and deglutition difficult. The patient had suffered from this for more than a year. At the consultation Professor Verneuil observed that the tongue presented nothing abnormal. Believing that he had simply to deal with lingual neuralgia, he subjected the patient to the treatment generally prescribed for neuralgic affections, and at the same time painted the painful part with a solution of cocaine. The improvement was immediate, as much in a physical as in a mental point of view. Dr. Verneuil related another case of a physician who believed that he was affected with cancer of the tongue and who had nothing else than neuralgia. The patient was in fact a hypochondriac, who died later on from general paralysis. A long discussion followed as to the pathology and treatment of this affection. Most of the speakers considered it neuralgic, but more or less under the influence of the mind, and that consequently the treatment employed should be in that direction. As for local measures Dr. Verneuil would recommend hypodermic injections, cauterization with the thermo-cautery of the painful part and the destruction of one or two calciform papillæ, but he would not resort to any severe surgical operation.

PARIS, Oct. 7, 1887.

Translations.

TANNIN IN THE TREATMENT OF INFLAMMATIONS OF MUCOUS AND SEROUS MEMBRANES.—(Dr. Deboué, of Pau.) In seeking to account for a rapid and unexpected cure obtained from tannin in a case of pleurisy, Dr. Deboué has come to employ this substance generally in a group of affections unlike in appearance but united by common ties. His description of the method of using the drug is as follows:

1. In numerous cases I have observed that tannin administered internally to the exclusion of all other medicaments, has produced a rapid quieting of the diverse symptoms occasioned by grave acute inflammations, either partial or general, situated in serous membranes, either cranial, thoracic, or abdominal. Employed perseveringly, it constitutes equally one of the most powerful means of overcoming the chronic forms of some inflammations, notably chronic pleurisy and partial peritonitis.

2. It has been employed with equal success in the inflammations of some mucous membranes, notably enteritis, bronchitis, pulmonary congestions, and also in one apparently desperate case of double pneumonia.

3. Some facts observed with care seem to demonstrate that this treatment may further prove useful in certain affections where epithelial alterations have changed the normal conditions of endosmosis and exosmosis, and notably in some as yet undetermined varieties of ovarian cysts.

4. Useful doses vary with cases and subjects, and may range from seven to ten grains up to two or three drams a day without becoming at all offensive.

5. The rapidity of the action of tannin has been remarked by all who have made use of this therapeutic agent. But this rapidity of action is, above all, striking in the gravest cases, and in the results attained it gives such character of evidence that it becomes impossible to attribute them to simple and happy coincidences.

6. When administered in a state of health, tannin produces constipation and other alimentary troubles, which, without being grave, nevertheless prevent its prolonged employment. When, on the contrary, it is applied to the diverse maladies enumerated in this memoir, and notably those in which abundant serous exudations occur, it combats constipation, stimulates or revives the appetite, provokes abundant perspiration and urine, and is perfectly tolerated at times in very large doses, while the medication may be continued for months and even for years. In three cases of the greatest gravity, one of meningitis, one of double pneumonia, and one of cerebral rheumatism, after some hours it caused delirium to disappear, and these three cases terminated in cure.

7. In order to act with full efficacy tannin

ought to be employed in a state of purity. That which I have made use of is the tannin prepared according to the process of Pelouze. Tannin of good quality is yellowish, or greenish yellow, or of a ground red. The latter is of untrustworthy character, and produces intolerance even where this medication is most strongly indicated.

8. In ninety-four cases of various affections that I have treated with tannin sixteen have presented a condition of extreme gravity. Of these sixteen cases eight were of purulent pleurisy, two of pelvic peritonitis, one of perityphlitis, one of puerperal peritonitis, one of cerebro-spinal meningitis, one of cerebral rheumatism, one of double pneumonia, and one of intussusception. Taking account only of the sixteen very grave cases, I have had five deaths, of which three were of purulent pleurisy, one of pelvic peritonitis, and one of intussusception, which makes a mortality of thirty-one and a fourth per cent. As to the other cases, of which a large number were also grave, as they pertain to diverse affections which are not admissible of comparison, it is not a matter of interest that they should be ranged in the same statistical manner. It suffices to say that the employment of pure tannin in all these various cases has produced an amelioration ordinarily quite prompt, followed nearly always by definitive cure more or less rapid, according to the case.—*Journal de Medicine de Paris.*

THE RELATION OF SYPHILIS TO LOCOMOTOR ATAXIA. — Dr. H. Naegeli, of Garus, has undertaken a collection and comparison of the literature relating to the connection between syphilis and tabes dorsalis. In addition to the 51 cases collected by Bernhart, he gives 46 additional cases out of the practice of Bernhart not previously published, 24 out of his private practice and 22 from his polyclinic.

Of the first 24, 9 or 37½ per cent were certainly syphilitic, 5, or 21 per cent, suspicious, while in 10, or 41½ per cent, were no evidence of previous syphilis. Among the 22 cases in the polyclinic 3, or 14 per cent, had certainly suffered from syphilis. Other cases were more or less suspicious (most of them having experienced only the primary affection and little or not at all the secondary). In only 8 cases could it be completely excluded. 58½ per cent of the private cases were suspicious, and 64 per cent of the cases in the polyclinic, or an average of about 60 per cent, which sustains the published reports previously made by Bernhart.

For purposes of control the author made investigations in the clinic of Leyden among 150 who had syphilis and were yet certainly free from tabes, and found that 16 per cent of these were set down as suspicious.

The statistics up to the present time amount to 1,403 cases (the above included) following syphilis, and 1,450 cases without syphilitic antecedents. Besides these are 400 cases from Erb, where the distinction certainly syphilitic and suspected was not made.

From the partisans of the dependence of tabes upon syphilis, Fournier, Erb, Voigt, Quinquand, Althaus, and Reumont have confirmed syphilis 466 times in 657 cases, or nearly 71 per cent, and in 100 other cases 15 per cent were found more or less suspicious, or a total of 86 per cent. On the other hand, Westphal, Remak, and Rosenthal found only about 18 per cent with syphilitic antecedents, while Gowers, Pusinelli, and Bernhart have met with from 50 to 60 per cent, or very near the average. To a similar average, namely, 46.1 per cent of certainly syphilitic and 14.5 per cent of suspicious, or 60.6 per cent in all.

Whether or not tabes is really a later form of syphilis the author declines to decide, but at all events as an etiological element in the production of tabes, syphilis holds an important place.—*Deutsche Med. Zeitung.*

IMAGINARY ULCERATION OF THE TONGUE. M. Verneuil gives the history of five patients who suffered acute pain at the edge of the tongue, and believed themselves affected with cancer of this organ. In one case the affection had lasted for one year and resisted all treatment. The pain was restricted to a circumscribed spot on the tongue, though sometimes it radiates to a certain distance. The movements of the tongue were free but at times developed pain. On examination of the tongue absolutely nothing was found The painful point is situated at the junction of the posterior third with the middle third of the tongue on a line with the last fungiform papilla.

In one of these patients, who was arthritic, M. Verneuil prescribed a moderate regimen of arsenic alkaline waters, abstention from tobacco, and bathings of cocaine. All the patients he had seen were from thirty-five to fifty years of age. They were robust and arthrithic. Treatment is of little efficacy. Should resort be had to an operation neurotomy is difficult, for the last fungiform papilla stands a good chance of being inervated by the lingual as the glossopharyngeal, and reaction of the latter is not an insignificant operation.—*Jour. de Med. de Paris.*

Tetanus of the New-born.—Dr. Burveniche, of Ghent, reports a case of tetanus and trismus in a child three days old. Of the ordinarily ascribed causes none were present, no trauma, no injury of the umbilical cord, and no thermic disturbances. Under the use of clysters of chloral hydrate as recommended by Henoch, three grains every hour, there was marked improvement on the third day and in a short time complete recovery.—*Deutsche Med. Zeitung.*

Treatment of Hemoptysis.—Von Seiz favors the renewal of a treatment once in vogue for hemorrhage of the lungs, which consists in placing a bandage or tourniquet around the limbs. This method is to be resorted to in severe and rapid hemorrhages, the bands being placed on the legs just above the knees and on the arms immediately above the elbows. They should be allowed to remain at the farthest not more than three quarters of an hour to an hour, and during that time should be watched very carefully.—*Ibid.*

Calomel as a Diuretic.—Dr. J. Solis Cohen reports that calomel has failed as a diuretic in a case of dropsy and general anasarca of chronic nephritis, during his present term of service in the German Hospital, in the very same man in whom most excellent results were obtained during his term last year.—*The Polyclinic.*

Abstracts and Selections.

Use of Thymol.—Dr. Frederick P. Henry, of Philadelphia, says: Following the suggestion of Martini, in the *Annali Universali di Medicina e Chirurgia* for February, 1887, I have recently prescribed thymol in a number of cases of intestinal diseases, catarrhs, acute and chronic, and typhoid fever, with the result of convincing me that it is a valuable adjuvant to our treatment of such affections. I do not attach any particular significance to the fact that all the cases of typhoid fever, ten in number, to which I have thus far administered the drug, recovered; but my conviction that the course of the disease was most favorably modified by the treatment was shared by the resident physicians, by practitioners who visited the hospital for the purpose of seeing the cases, and last, and perhaps not least, by experienced nurses.

The benign course pursued by these cases was especially evident when contrasted with that of an equal number treated without thymol during the first half of my hospital term. The favorable effect of the drug was evinced by a steady descent of the temperature, by a gradual diminution in the daily number of stools, by the absence of mental excitement, and most conspicuously by the clean, moist tongue presented in every instance. One case caused some anxiety for a few days after his admission on account of the presence of decided tympany and general abdominal tenderness, but these ominous signs gradually disappeared.

I have also administered thymol with good results to several cases of intestinal catarrh, of which one is worthy of some detailed account: Mary S., aged thirty-six, married, was admitted to the Episcopal Hospital on May 14, 1887. She was pale, thin, and anemic. Seven years ago, after removing to Philadelphia from the country, she had an attack of "diarrhea" (dysentery?), with from fifteen to twenty stools a day in spite of treatment. Defecation was painful, with marked tenesmus, and the dejecta were thin and streaked with bloody mucus. Gradually the number of passages were reduced to from five to six *per diem*, and for nearly seven years, notwithstanding treatment by several physicians, this has been the daily average. Soon after admission she was given thymol gr. x., *ter in die*, and the next day the number of stools was reduced to three. A week later she had a well-formed stool every second day, and expressed herself as feeling better than at any time during the past seven years. On July 1st, when my term of service expired, she was well so far as the diarrhea was concerned, but was still somewhat anemic.

The medicinal use of thymol is based upon its well-known antiseptic properties, and its action in the cases under consideration was favored by its great insolubility which enables it to reach the intestine, mingle with its contents and neutralize the toxic ptomaines that are formed in great quantity in catarrhs of the gastro intestinal tract. In the opinion of many authorities it is to the absorption of large quantities of these toxic products of fermentation and putrefaction that the so-called typhoid symptoms are largely due. These opinions do not rest solely upon theory, for it is found that during the administration of thymol, phenol, which is one of the most constant products of intestinal putrefaction and is almost entirely eliminated with the urine, is no longer found in that excretion.

I have always prescribed the thymol in pill, of which the best excipient is medicinal soap, and so far have not given more than thirty grains in twenty-four hours—two two and a half grain pills every six hours. This is a small dose, but I have seen no reason to increase it. This may be done however with perfect safety, and perhaps with still better results. It has been administered with brilliant results by Bozzolo in cases of anchylo stomiasis in doses of from ten to twelve grams (two and a half to three drams) per diem.

The only case in which I found the drug to produce any unpleasant effect—slight digestive disturbance—was that of a woman with advanced phthisis, chronic diarrhea, and who was besides the host of a tapeworm. Thymol has been found to be an excellent tenifuge by several Italian observers, and it was for this purpose that I prescribed it in the case last mentioned. The woman had voided no fragments of the worm for two weeks, and it was a question whether the parasite had been entirely expelled. Although but a few doses of the thymol were tolerated, they were quickly followed by the expulsion of several fragments of the worm.

Martini, whose experience with thymol has been large, has only found it give rise to unpleasant symptoms—delirium and stupor—in one case, that of a girl, aged fourteen, to whom thirty grains had been given in the course of two hours; the symptoms were transient, the treatment was resumed, and the case, one of typhoid fever, recovered without further mishap.

Dr. D. J. Milton Miller has continued the use of thymol in the medical wards of the Episcopal Hospital since he took charge of them on July 1st, and writes as follows: "Generally speaking my success with thymol in typhoid fever has been most satisfactory. The cases do seem to run a more favorable course than usual, as shown by lower temperature range, less diarrhea, the absence of complications, and even a shorter duration of fever."—*Medical News.*

PNEUMO THORAX.—Dr. Samuel West finds that phthisis is the cause of at least 90 per cent of all cases of pneumo-thorax. If from the remaining 10 per cent we exclude cases of gangrene and acute inflammatory or traumatic lesions of the lungs or pleura, only 2 or 3 per cent of all the cases are to be accounted for by causes not referable to the lungs. About one case of tracheotomy in every fourteen is followed by pneumo-thorax.

After insisting upon the fact at which he has arrived as the result of experimental researches, and which he has confirmed by clinical observation, that the lungs can resist a pressure represented by nine inches of mercury, and therefore a pressure greater than can be exerted by voluntary inspiratory efforts or by coughing, he concludes that the occurrence of pneumo thorax is presumptive evidence of unsound lungs.

The author then proceeds to study the mechanism of the production of pneumo-thorax He accepts as correct the statement that the elastic lung tissue has a tendency to pull the pulmonary pleura away from the parietal pleura, but then asks, why does not collapse of the lung always occur when air enters the pleural cavity? That it does not, is proved by ample clinical and *post-mortem* evidence. Rejecting, then, as untenable the supposition that pneumo thorax occurs, but that the air is promptly reabsorbed, he details an elaborate series of experiments, as a result of which he concludes that moist serous surfaces, when accurately approximated, offer a resistance to being pulled asunder considerably greater than the calculated equivalent for the normal elasticity of the lung. "Therefore, pneumo-thorax can be no longer regarded as a condition to which there is an inherent tendency in the healthy body, but, on the contrary, as a condition brought about by the forcible separation of the pleural surfaces, and in this respect exactly analogous to the distension of the subcutaneous tissue, which occurs in surgical emphysema; and, considering the frequency of subcutaneous emphysema, and the rarity of pneumo-thorax in simple fracture of the ribs, it would seem to follow as a corollary that the force required to distend the subcutaneous tissue must be less than that required to separate the layers of the pleura. Pnumo thorax, therefore, so far from being, as it is commonly regarded, a passive process, and inspiratory in origin, is really expiratory in its initial stage, and requires an active force to produce it; and surgical emphysema, so far from implying, as Fagge asserts, the necessary antecedence of pneumo-thorax, may in reality be a protection against it, the air making its way in the direction of least resistance beneath the skin rather than between the pleural surfaces."

It is manifest that, when compression of the lung has once taken place, a certain force will be requisite to produce expansion again. How is this brought about? If fluid is contained in the pleural cavities, it may be removed by the pump-like action of respiration upon the lymphatics of the pleura; by being squeezed through the lung, and then removed by expectoration or absorption; or by absorption from the pleural cavity itself.

With reference to the removal of gases from the pleural cavity, there are three forces to be considered: diffusion, simple absorption, and absorption aided by chemical combination. As the rapidity of interchange of gases is great, it is probable that the force exercised may be far greater than is required for the expansion of the lung.

The prognosis of pnuemo-thorax is unfavorable; about 90 per cent of the author's cases died in the first month. When recovery takes place, it is in one of two ways, either by the gradual conversion of the pneumo-thorax into hydro-thorax, or by the simple disappearance of the air. The mechanism of these processes is indicated above.—*Med. and Surg. Reporter.*

THE DYSPNEA OF ASTHMA AND ITS TREATMENT.—The causation of the asthmatic paroxysm is still in dispute, and at least three theories have advocates more or less zealous. The demonstration of the bronchial muscle gave a firm anatomical basis to the view that the attack was due to its spasmodic contraction. Wintrich and Bamberger hold that such a condition is inconceivable with the enlarged and hyper-resonant state of the lungs during the paroxysm, and they support a theory of tonic spasm of the diaphragm, either alone, or with the other muscles of respiration. A third view, that of Traube and Weber, attributes the attack to swelling and hyperemia of the bronchial mucosa—through vaso-motor agency—similar to that which occurs in the nasal mucous membrane in the early stage of catarrh. At present a majority of the observers are divided in opinion between the theory of spasm and that of hyperemia with tumefaction.

In the American Journal of the Medical Sciences for October, 1887, Fraser, of Edinburgh, relates some interesting observations which support the spasm theory, and have a very practical bearing on the treatment of the attack. It occurred to him to study the auscultatory phenomena during the asthmatic paroxysm in order to ascertain if they could be modified by the action of any agent known to control the contractility of unstriped muscle. Now, it is well known that the most constant and striking physical signs accompany asthma, viz., the dry whistling *râles* (without any moist sounds) produced in the tubes either by spasm of the muscle or swelling of the mucosa. If it could be shown that the administration of a remedy known to relax unstriped muscle was followed by a disappearance of the *râles* and relief of the dyspnea, a strong point would be made in favor of the spasm theory. This Fraser has done, using the nitrites, whose capabilities of relaxing non-striped muscle in the case of arteries is well known. Eight observations are recorded in which either nitrite of amyl, nitrite of ethyl, nitrite of sodium, or nitro-glycerine was given, and the chest carefully auscultated before and after every administration. In each instance, improvement more or less positive followed, and the dyspnea and sounds disappeared simultaneously. From the well-recognized action of these bodies in reducing the contractility of non-striped muscle, it seems reasonable to attribute the relief to the relaxation of the spasm of the bronchial muscles.

The nitrite of amyl was given in solution, five minims in two drams of water, or inhaled, ten minims on blotting paper at the bottom of a small glass tumbler. The nitrite of ethyl (nitrous ether) acts well in ten-minim doses of a twenty-five-per-cent alcoholic solution. Of the nitrite of sodium ten minims of a ten-per-cent solution, and of the nitro-glycerine five minims of a one-per-cent solution were employed. The administration of nitrite of amyl in the asthma paroxysm has long been practiced, but the accurate determination of the coincidence of the relief of the symptoms with the disappearance of the physical signs has not before been so closely followed. We believe a combination of the nitrite of amyl, given during the paroxysm, and the nitrite of sodium given continuously, will act more surely than either remedy alone, as the latter gives that permanence which we miss in the action of the nitrite of amyl.—*Phil. Medical News.*

CERTAIN POINTS IN CONNECTION WITH SYPHILIS.—Prof. E. Lang, of Vienna (*Wiener Med. Blätter*), relates three cases in which gummatous lesions passed into cancer:

1. A man, aged forty years, presented several subcutaneous gummata, and at the same time a hard nodule in the floor of the mouth under the tongue. In spite of specific treat-

ment the latter ulcerated, became papillomatous, and finally assumed the character of a true epithelioma.

2. In a man of about the same age, a gummatous ulcer of the lower lip healed under appropriate treatment, but a year later it again ulcerated, and excision proved it to be cancerous.

3. This case was less definite. In a syphilitic patient an epithelioma formed on the lower lip, but the evidence of a previous gumma was not forthcoming.

M. Horwitz treats of the hemorrhagic form of secondary syphilis, and holds that it indicates a mild course of the disease. Two cases are given.

M Bourdin, of Paris, points out that the following conditions may render an attack of syphilis unusually severe: (1) Chronic alcoholism. (2) Want or physical depression from various causes. (3) Neglect of treatment in the early stages. (4) A very early or a very advanced age of the patient. (5) Certain diatheses, especially the scrofulous or tuberculous one. (6) Pregnancy. (7) Malaria. With regard to 4, the age of the patient, we have seen cases of syphilis acquired at the age of four and sixty years pass through the various stages without presenting any thing unusual in the symptoms or their severity.

M. Bidon, of Paris, describes under the term diffuse hypertrophic syphiloma a tertiary infiltration affecting sometimes the mouth or other parts of the face, sometimes the genitals of either sex, and sometimes the rectum. The diagnosis is often mistaken during the early stage, when active treatment would diminish the risk of the infiltration passing on into stricture, and therefore the affection is worthy of special note, although its pathology presents nothing exceptional from that of other tertiary syphilitic lesions. In a very marked case lately under our observation the skin of the penis, the prepuce, and even the glans were enormously thickened. The disease had been regarded as epithelioma, and considerable ulceration had occurred. Careful examination of the excised prepuce showed it to be infiltrated with round cells, and at one part a small gumma was present. Subsequent treatment with iodide of potassium led to complete subsidence of the remaining swelling.

M. Quédillac reports eight cases of jaundice occurring during the secondary stage of syphilis. The pathology of this now well-recognized symptom is still obscure. It may be due to an inflammation of the hepatic parenchyma allied to the renal affection which produces albuminuria during the secondary stage, or to catarrh of the biliary ducts. In favor of the latter view the writer states that occasionally biliary colic of a mild form occurs during its course Mercurial treatment is followed by rapid improvement, and if it is omitted the jaundice tends to persist for a considerable time. It appears to be most commonly met with in hot climates.

M. Saint-Avid believes that the non infecting chancre of the uterus is more common than is generally believed, that it may be situated either on the os uteri or within its canal, and that it may be either of the follicular variety, the diphtheritic, or the ulcerating. Lymphangitis secondary to the chancre may lead to pelvic peritonitis. Successful inoculation of the secretion is the only test of the intra-uterine chancre, when chancre exists on the os and on the vaginal wall or vulva. M. Quédillac holds that the former is nearly always the primary one.—*J. Hutchinson, jr., Annals of Surgery.*

General Conclusions Derived from the Study of the Eyes of One Thousand Insane Patients.—The conclusions expressed in the present paper are derived from the examination and study of more than a thousand cases of insanity, observed either in private practice or at the Philadelphia and Norristown hospitals. This work has extended over a period of more than four years, and consisted of a thorough eye examination, the ophthalmoscope being employed by the direct method whenever possible, the eye being examined usually with and without dilatation of the pupil; vision for form was taken in all cases; in addition, the ear and pharynx were examined, as it was thought that these examinations might serve as a corroboration to those of the eye. The work was undertaken with the thought that if a sufficient number of patients were examined, it might serve to shed some light upon the pathology of insanity, and it was hoped that, even in a therapeutic aspect, it might prove not unprofitable.

Of course, in the short paper here presented, many points of minor importance evolved during the investigation are omitted, the effort being to indicate the general results obtained, only well-marked characteristics being here presented.

Vision for form, in all conditions of insanity, is practically normal, when we allow for refractive errors, opacities in the refracting media, and unhealthy conditions of the background. Of course, all things being equal. for instance, vision in dementia is not as good as in acute mania, because, as we shall find, in dementia we are dealing with a general degenerative condition, as expressed in the eye by more or less atrophy of the nerve, whereas, in acute mania we usually have present a condition of exaltation, represented by an increased blood-supply in the eye. Then, again, in imbecility, we do not expect to obtain the same vision as we would in other cases, as the want of education, and the frequent impossibility thereof, is a factor to be taken into consideration. In conclusion, we may say that vision for form in the insane is the same as in the mentally normal with similar eye conditions.

The visual fields are very often reduced in consequence of the optic nerve degeneration so frequently found in cases of insanity; this reduction of the field's area differs not in variety or extent from what we would expect to find in similar nerve degeneration in the sane.

The pupils are far more frequently unequal and irregular in outline than in the sane; they are also more frequently sluggish, the irides slowly responding; particularly is this the case with the light reflex, the accommodation reflex being more frequently normal. These pupillary variations are more frequent, both in severe acute attacks, as well as in very old chronic cases. In the former we have slowly responding pupils, inclined to dilatation, while in the latter class they are more often unequal and irregular in outline.

Insufficiency of the recti muscles was found to be more frequent in imbeciles and idiots than in the mentally sound, but in the other classes of insane patients this fact was not observed.

Corneal, scleral, lens, and vitreous troubles are met with in about their ordinary frequency.

Choroidal inflammations are very uncommon, except in cases of general paresis.

Choroidal congestion is more common than among the sane; it is often found in connection with retinal hyperemia, but not unfrequently it is found alone.

In studying the condition of the optic nerve and retina, it will be found best to take up in a connected manner the various forms of insanity. In fact, after studying the eye conditions among insane patients, one can not help feeling that there is a very intimate relationship existing between the various forms of insanity; one is led to believe that the three divisions—melancholia, mania, and dementia—are but different stages or phases of the same condition.

We shall find it best to first give the results obtained in cases of acute melancholia, as undoubtedly this is the commencement stage of many, if not all, cases which are found under the classes of melancholia, mania, and dementia.

On examining the eyes of a case of acute melancholia, we find that the fundus almost invariably shows us a condition of retinal hyperemia or of congestion; if taken early enough, it is but hyperemia, the vessels, both arteries and veins, are larger than normal; they are often tortuous, with slight increase in the size of the lymph channels; the general appearance of the retina is more red than usual, and the nerve is slightly pinkish. If the case goes on into one of acute mania, we have a more marked increase in the blood-supply, we have a condition of congestion; the vessels are larger, the retina becomes darker in color, while the macula lutea loses its brilliancy, inclining to become a dull red. If the case is sufficiently severe, this condition of things continues increasing in severity, and soon we have retinal effusion, with a decidedly pink nerve. If the case becomes better, the congestion lessens, the effusion gradually disappears, and as the case gets well the eyes gradually assume their normal condition.

Not infrequently we have, early in a case of acute mania, a condition of atrophy presenting itself; or, again, a swelling of the nerve, with obliteration of its edges (a slight papillitis), resulting in atrophy. These cases are not inclined to recover; they are apt to go into a chronic condition, and are almost invariably incurable. It may be that in the case of acute mania the congestion and effusion remain, becoming no worse, nor yet better. If it continues, we have, sooner or later, an atrophy of the optic nerve resulting. Patients who have had one or more attacks of acute mania, almost invariably present a condition of nerve atrophy in addition to an increased blood-supply. A case of acute mania, becoming one of chronic mania, gradually shows more and more atrophy of the nerve, while the congestion gradually subsides, the effusion being absorbed, the vessels becoming less tortuous, and decreasing in caliber. As the case of chronic mania merges into dementia, we have still more marked atrophy, and now we begin to find that the blood supply is not only not increased, but that it rapidly diminishes, until at length it is less than normal; frequently the vessels in long-standing cases of dementia are very few and very small. When the condition of chronic dementia is fully pronounced, we have a very decided atrophy of the nerve structure, and a very marked diminution both in the number and size of the retinal vessels.

There is a distinct and separate class of cases of acute mania which are classed as cases of delusional mania, in which there is almost invariably some heart defect, and we find only a slight degree of hyperemia of the retina, or else we find the retina perfectly normal. These cases often last for a very long time; year after year the same mental condition is present, they show no progressive eye change. They are not inclined to get well, nor to pass over into dementia, but die usually in their disturbed mental state from heart disease.

If a case of acute melancholia is becoming better, we find a gradual diminution of the retinal hyperemia or congestion, the fundus of the eye clears up, and when the patient has recovered there is usually no vestige left in the eye. Cases of acute melancholia which are but very slowly progressive, in whom year in and year out there is but little change in the mental condition, show but little or no change in the retinal circulation. Usually there is present a hyperemia which continues on the same plane. The case may continue year after year, and may go on into dementia later on, when we shall begin to notice the atrophic tendency; if, however, there is a tendency to recovery, we find the eye presenting a subsidence of its abnormal condition, the blood supply is lessened, the vessels are smaller and less tortuous.

There is, however, a series of cases of melancholia which from their onset are very mild in character, and remain so throughout, becoming well in a greater or less length of time. These cases very rarely have any eye change; but, when present, it is of the nature of a very slight retinal hyperemia, which clears up as the case recovers.

As before indicated, we have in general paresis the majority of the cases of choroidal inflammation. The greater number of cases examined, which have been classed as paralytics, were found to present some syphilitic lesion of the eye.

In imbecility and in idiocy we have blood-vessels whose caliber is greater than normal, the vessels being numerous and tortuous, and the blood-supply is invariably greater than the normal; in addition to this we usually have large optic disks, but they are not of normal color, and seem to present an increased amount of fibrous tissue, showing a poor nerve condition. The macula lutea is usually of a dull red color.

In epilepsy we have present the same conditions, with far less frequency of large optic disks, as in imbecility and idiocy; but it is not so invariably. In addition, we have in epilepsy a more decided tendency to nerve degeneration, and also have an increase in the size of the peri-vascular lymph channels, and, in many cases, we have retinal effusions occurring. *Dr. L. J. Lautenbach, Philadelphia Med. News.*

Recovery from Stab Wound of Abdomen, with Wound of Colic Artery and Bowel Protrusion.—At midnight of July 1, 1887, I was called to see a negro man who had been stabbed in the abdomen. Found him lying upon a dirty porch, and covered over by a filthy feather mattress, his body reeking in blood, vomit, perspiration, urine, and dung, and in deep collapse. Removed mattress, found enormous protrusion of intestine, on the surface and in the folds of which were clotted blood, numerous chicken feathers from mattress, and other miscellaneous filth. The fellow's dirty hands were lying in the mass, unconsciously endeavoring to support it. The intestinal tumor was cold, cyanosed, and congested. This was about two hours after he had been cut. Warm water was presently got and carbolized to five per cent, into which some cotton underclothes (soiled) were dipped and the guts enveloped in them. After a short consultation with my colleague, Dr. J. Y. Brown, we agreed, even in the face of the filthy environment and poor light (two chimneyless lamps), to proceed to the restitution of the intestines by a methodical laparotomy. The guts were irrigated with a warm five-per-cent carbol solution and were systematically searched through and cleansed. The tumor consisted of the following procession of intestine: colon transversum with its mesocolon, entire omentum, about two feet of jejunum and its mesentery; guts in medium grade of tympany. Found more feathers in folds of mesentery and omentum. There was a cut in the mesocolon, involving about two thirds of its thickness, situated about midway between its fixed border and transverse colon. The cut was about three centimeters long, transverse in direction, and evidently made by the point of the knife. The clot being rubbed out of the cut, it began bleeding in a weak, diffused jet. The bleeding vessels had retracted into the tissues of the mesocolon and could not be caught by forceps until the peritoneum on the superior surface was scissored up. The severed arteries were the main right branch of the arteria colica media and a branch thereof. Ligated proximal and distal ends with sublimatized catgut. Iodoformed wound. This part of the operation was most difficult, owing to the poor, flickering light. Several candle moths also fell upon the peritoneal field of operation. Digital exploration of the wound in the wall of the belly was made beneath the guts. It was found to be transverse in direction, a little to the right from middle of epigastric region, about five centimeters long, slanting inward to the right, the right rectus abdominis entirely severed, the circumference of the wound tightly strangulating the expressed bowel, thus probably preventing lethal hemorrhage from the arteria colica media. Systematic reduction was attempted in narcosis, but failed. The wound was then enlarged by an incision extending from its inner angle to the umbilicus, after which restitution was effected. The peritoneum of the extrusion had become glazed and opaque from the long action of the carbol. The various peritoneal apartments were sought out, particularly Douglass' sac and the recessus duodeno-jejunalis, and wiped with sublimate gauze. Only light blood staining serum seemed in excess. Air expressed, wound closed with eight deep silk sutures, snowed external wound under with iodoform, sublimate gauze dressing. The only bad symptoms that followed were decided intestinal tympany on third day, with slight abdominal pain—no morphia used. His temperature on that day registered the highest—101°. He left hospital on July 19th apparently well.

The several items in this case for which special consideration is asked are the following: (1) The long-continued exposure of the peritoneum (about three hours). (2) The wonderful opportunity for severe infection on such a delectable *locus minoris resistentiæ.* Doubtless infection did take place, but the carbol was at hand and destroyed the germs on the superficies of the peritoneum, and in all probability overtook and paralyzed others in the peritoneal lymphatics. (3) The almost entire absence of blood in the peritoneal cavity. The severed arteria colica media must have bled freely into the peritoneum before it made its escape through the external wound. If so, whatever the quantity was, it must have been absorbed in this short time; but little blood gained access to peritoneum from the section wound. (4) The technique of the wounded mesenteric artery.

Do cut mesenteric arteries retract into the tissues of the mesentery as they did in this case? I have not seen or found a report of a case in point. In this case it certainly did make a severe complication of technique, and made thoughts of Jourdan's pessimistic teachings on that point too *apropos.* The escape of the intestine from wounding in this case is reminiscent of the experiments of Hermann and Albrecht, who often with cadavers succeeded in stabbing them in the abdomen without wounding the bowel. (Koenig)—*Dr. A. R. Jenkins, Annals of Surgery.*

HEPATIC CIRRHOSIS IN CHILDREN.—Dr. R. Palmer Howard, of Montreal, reports in the October number of the American Journal of the Medical Sciences two cases of this rare affection in children, in which neither the use of alcohol nor the virus of syphilis can be assigned as the cause. Dr. Howard then presents a very careful study of the clinical histories of sixty-three cases occurring in children before puberty of which he has been able to collect the records. As the result of this analysis he finds:

1. That most of the established causes of the disease in adults obtain also in children, more especially the use of alcohol, present in 15.8 per cent of the whole number; syphilis, chiefly hereditary syphilis, present in 11 per cent; tuberculous disease of other organs than the liver in 11 per cent; also, but much less frequently than these, venous congestion of the liver, peritonitis, and a general tendency to connective-tissue formation in the system.

2. That syphilis occasionally tends to a diffuse interstitial hepatitis or cirrhosis, by first inducing an adhesive inflammation of the portal vein.

3. That a general arterio-capillary fibrosis is not proved by these cases to be the usual and probably not even a frequent cause of hepatic cirrhosis in childhood.

4. That more than half of the cases of hepatic cirrhosis in children do not appear to be produced by the above-mentioned well-established causes of that affection.

5. That there is some evidence that cirrhosis of the liver may be very exceptionally induced by the acute infectious diseases—cholera, typhoid fever, measles, scarlatina—but that proof of this is wanting.

6. That the habitual use of a stimulating diet or the absorption of the products of faulty digestion are probably fruitful sources of hepatic cirrhosis in children.

7. That it is in harmony with what is known of the causes of hepatic cirrhosis to believe that the bodies known as ptomaines may be capable of exciting a cirrhotic condition, and that investigation of this subject deserves attention.

8. That the period of childhood most liable to cirrhosis of the liver is from the ninth to the fifteenth year inclusive, but that it may be congenital, and may occur at any age after birth.

9. That it is twice as frequent in male children as in female.

10. That its symptoms are essentially the same in childhood as adult life.

11. That it is frequently accompanied by pyrexia.

12. That ascites or icterus, and frequently both together, are of common occurrence in the atrophic and hypertrophic forms.

13. That the group of symptoms which have been referred to cholemia or to cholesteremia or to acholia, and even sometimes to uremia, frequently ushers in the fatal issue of hepatic cirrhosis in children.

STENOCARPINE.—Dr. Knapp sums up the results of experiments with the new local anesthetic, stenocarpine, as follows:

From the preceding and Dr. Claiborne's observations, it follows that Drs. Goodman and

Seward have presented us with a new local anesthetic that is very similar to cocaine, chiefly differing from it by its more powerful and lasting mydriatic property. This difference determines its range of applicability.

1. Every where, when dilatation of the pupil is desirable—that is, in all conditions that have a tendency to congestion and inflammation of the iris—stenocarpine, either alone or in combination with atropine, is beneficial, and preferable to cocaine.

2. Though its mydriatic effect be less persistent than that of sulphate of atropine, stenocarpine may be used with more advantage when in iritis there is increase of eyeball tension, a tendency to glaucoma, and when there is great pain. Further observations have to show whether or not stenocarpine, as other mydriatics, leads to granulations of the conjunctiva. If it does not, it will be very valuable in cases of chronic iritis.

3. Stenocarpine is inferior to cocaine when we want anesthesia without mydriasis, as is the case in the majority of operations—removal of foreign bodies, paracentesis and incision of the cornea, iridectomy, extraction of cataract—more especially when in this operation the iris is spared—operations on the conjunctiva, the lachrymal apparatus, and the eyelids. For an ophthalmoscopic examination, homatropine will be preferable.

4. If we want to be certain of a complete paralysis of accommodation, for which stenocarpine is as reliable as sulphate of atropia, stenocarpine deserves preference because its action lasts only half as long.

5. Applied externally to an unbroken cutis it produces no anesthesia. Observations to the contrary mentioned by Goodman and Claiborne must be owing to peculiar conditions which further experience has to determine.

6. Small doses (four drops) rapidly absorbed may produce transient general symptoms—pallor of the skin, cold perspiration, dizziness, stupor, fainting, nausea, and weakness. The same symptoms are produced by cocaine.

7. Larger doses cause the most alarming general symptoms—violent tetanoid convulsions, opisthotonus, dilatation of the pupils, excessive acceleration of pulse and respiration and prostration.

8. Introduced into the veins, stenocarpine is the strongest poison, causing death almost instantly by arrest of respiration and pulsation.

9. It is certainly dangerous to inject even small quantities into vascular tissues, such as the orbit, for instance; it appears even unsafe to inject it under the skin in quantities exceeding ten minims of a two per-cent solution—that is, about 0.01 ($\frac{1}{6}$ grain). We should also be on our guard if we apply it to an open wound during the progress of an operation.

10. The symptoms of poisoning, as has been seen from the above description, are like those from strychnine. The affinity of the two substances should be further investigated. The chemical tests for the detection of strychnine applied to stenocarpine have proved negative. The reflex excitability from stenocarpine is less than from strychnine, also its toxic effect is considerably less. I instilled into the eyes of a rabbit four drops, and into one eye of another two drops of a two-per-cent solution of nitrate of strychnine. Both animals died from tetanoid convulsions in ten minutes. Ten and fifteen minims of a two-per-cent solution of cocaine injected into the orbits of rabbits had no general effect.

The alkaloid stenocarpine was separated by Dr. Seward from the leaves of a tree growing in Louisiana, called the "Tear Blanket Tree." From its likeness to the *Acacia stenocarpo* he dubbed it stenocarpine.—*Medical Record*

ON THE THERAPEUTIC ACTION OF THE SULPHATE OF SPARTEIN.—Dr. J. Mitchell Clarke, of Bristol, records in The American Journal of the Medical Sciences for October a clinical study of the therapeutic action of spartein. He finds that it raises the arterial tension and regulates the pulse. The first effect, coming on about thirty minutes after the exhibition of the dose, consists in a strengthening of the force of the heart beats, with a slowing and regulation of the pulse in cases where this is abnormally rapid. Closely following on this, at about forty-five minutes or one hour after the dose, the arterial tension is raised, and shortly before this rise of tension, or at the same time, the surface of the skin becomes red, flushed, and moist, with in some instances free perspiration. During the next two or three hours, for the first part of the time, the surface of the body remains flushed and warm, the arterial tension continues to rise or to remain at a higher level than before the dose, and the rate of the pulse to be slowed until it reaches or approaches the normal, while from the first the heart beats with increased force. The patient meanwhile experiences a marked sense of well-being and of comfortable warmth, with, if it existed, loss of precordial distress, irregular cardiac action, and dyspnea.

Spartein also causes a variable increase in the amount of the urinary secretions, with increased excretion of urea, in correspondence with the increase of water; and this diuretic action we should anticipate as a consequence of the strengthened *vis a tergo*, the rise of blood pressure, and the increased quantity of blood passing through the kidneys. This flushing of the surface was a constant result, except in a few cases. On respiration spartein produces an initial quickening, followed by a slowing, reaching or approaching to the normal rate. At the same time the respiratory movements are of greater depth.

LIGATURE OF THE EXTERNAL CAROTID ARTERY.—Dr. John A. Wyeth (Annals of Surgery) thinks that data presented warrant the following propositions:

1. Ligature of the external carotid artery, together with independent ligature of the branches arising from the first inch of its course, is a safe and commendable operation.
2. When the facial and lingual arteries do not arise singly, or by a common trunk from the first inch of the course of the external carotid, the branches arising at the point of bifurcation of the common carotids should be tied.
3. Simultaneous ligature of both external carotids is a rational preparatory measure for operation involving the parts supplied by their branches when dangerous hemorrhage is feared. If the pharynx be involved, the ascending pharyngeal branches should be ligated also.
4. Simultaneous ligature is advisable as a final expedient to diminish the rapidity of the development of the extensive malignant growths when they are nourished by the branches of the external carotids.
5. Ligature of one or both of the external carotids for the cure of aneurismal formations of the branches of the same is not feasible as an independent curative measure.
6. Ligature of the common carotid should not be done for the cure or for the arrest of morbid conditions involving the external carotid or its branches, except as a final resort.—*American Lancet.*

PUNCTURE OF THE HEART IN CHLOROFORM NARCOSIS.—Dr. B. A. Watson (Medical Record) presents an experimental study of the effects of puncture of the heart in chloroform narcosis. He concludes:

1. Puncture of the heart, especially of the right ventricle, stimulates muscular contractions, and may be advantageously applied in the treatment of chloroform narcosis.
2. The best results are obtained when abstraction of blood from the cavity of the ventricle is combined with the stimulating effects produced by the entrance of the aspirator-needle.
3. The puncture of the right ventricle is a safer and more efficient procedure than the puncture of the left ventricle.—*Ibid.*

DIAGNOSIS OF BEGINNING CARCINOMA OF THE CERVIX.—Since experience has shown that beginning carcinoma of the cervix can be entirely cured by operation, it is important that family physicians send the patients to the specialists early. And in order to make at least a probable diagnosis without microscopic examination of an excised piece, C. H. Stratz says that from his observation and that of others the important signs of carcinoma are as follows:

1. The diseased place is sharply limited by sound tissues, not going over into it by degrees.
2. A difference in the level of the whole diseased portion can always be made out.
3. Carcinomatous portions have always a light yellow color.
4. The malignant deposits are usually shown as finely granular, whitish yellow glistening elevations, at least in individual places.—*Jour. Amer. Med. Association.*

THE DYSPNEA OF ASTHMA AND THE INFLUENCE OF NITRITES UPON IT.—Dr. Thomas R. Fraser, of Edinburgh, in the American Journal of the Medical Sciences for October, records a clinical study of the cause of asthma and the influence of nitrites upon it. He establishes the view that the dyspnea of asthma is caused by spasm of the bronchial muscles, and points out the value of the nitrites in its relief, and that the best therapeutic effects are not obtained by the inhalation of nitrites, but by their administration through the stomach. The facts seem to justify the assertion that their administration in this manner in asthmatic dyspnea or orthopnea is entitled to rank as one of the most valuable applications of pharmacology to the treatment of disease—an application at least as valuable as that in the painful angina of aortic disease, to which nitrites are at present almost restricted.

POTASSIUM PERMANGANATE AS A PREVENTIVE OF DIPHTHERIA.—Johannsen (*St. Petersburger Med. Woch.*) argues that the secretions of the mouth and nose accumulate during the night and undergo more or less decomposition, thus favoring the action of the diphtheria germ. He therefore advises washing out the mouth and the nasal passages of children every night with a clear red solution of potassium permanganate. He thinks his observation warrants the statement that the practice is efficient.—*New York Medical Journal.*

ULCER OF TONGUE CURED BY ELECTRICITY. The *Paris Médical* of July 23d reports a case of ulcer of the tongue cured by a continuous galvanic current. The treatment required one hundred and ninety *séances* during eighteen months.

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. IV. SATURDAY, OCTOBER 29, 1887. No. 9.

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H. A. COTTELL, M. D.,
D. T. SMITH, M. D., - - - Editors.

A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year, postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

Books for review, and all communications relating to the columns of the journal, should be addressed to the EDITORS OF THE AMERICAN PRACTITIONER AND NEWS, Louisville, Ky.

Subscriptions and advertisements received, specimen copies and bound volumes for sale by the undersigned, to whom remittances may be sent by postal money order, bank check, or registered letter. Address

JOHN P. MORTON & CO.,
440 to 446 West Main Street, Louisville, Ky.

WHAT IS GENIUS?

"Of all the difficult problems," says the St. James Gazette, "which have ever troubled the intelligence of inquisitive men, perhaps there is none to which the answer is more doubtful than this: What is genius?" The Gazette then proceeds to sketch the infinitely varied conceptions that different classes of people seem to have formed of it, and suggests that perhaps one way of meeting the difficulty would be to say, that the essence of genius is creative power—a creative power working in strict accordance with nature and the fitness of things.

The answer of the Gazette, if sufficiently accentuated, appears to us to be the true answer, or at least to be in line with the true answer. Let us consider for a moment what is meant by being in strict accordance with nature. If, on the one hand, we suppose nature to represent a line of guide-posts, then behind nature is the traveler who is guided and directed by them, but in whom is the force of the advance. If, on the other hand, we suppose nature to be an orderly force of which our minds are part, we have the key not only to the secret of genius, but to all correlated mental attributes. We can know nature only as a force, and a force expressed as only forces can be, in various modes of motion. It has been said that nature loves a curved line. But nature loves a curved line only because it is the outline of a wave. Nature is constituted of undulations and loves undulations. We who are a part of nature are happy when the motions within us are in harmony with the undulations that make up general nature. When we are partly out of harmony there arises a sense of violence that produces a feeling of unhappiness. Nothing better illustrates this than the origin of the Greek term for "sin." Long before the primitive Greek had coined a word for the abstract idea of "sin," he had felt the necessity of accuracy of aim with his bow and arrow. When he took the mental measure of the direction and distance of a mark, it was recorded in terms of a certain order of vibrations in his brain. When he let fly the arrow and it went wide of the mark, he felt in his mind that the order of vibrations produced by the shot were not in harmony with those provided for the result. As a consequence the thought which he expressed in the word *amartaneka*, "I have missed," brought him pain. When civilization further advanced, when a higher order of culture supervened and his more refined posterity attempted to chisel a soul into some marble Venus, or to imbue with passion some creation borrowed from heaven and spread on canvas ere yet it had gathered the breath of life, if the chisel or the pencil slipped and marred the "curves" which nature loves, he painfully exclaimed, *amartaneka!* "I have missed." Higher still, when moral rights came to demand a delicate regard, whenever he felt that he had violated the privileges of his fellow-man, or the supposed behests of his gods, which in his brain were formulated in a certain order of undulations, he could only say, *amartaneka*, "I have missed; I have fallen short of the harmonies; I have sinned!" All this forms but one of the aspects of genius. Genius implies riding the waves or drifting with the tide. We have already said we can never be wholly foreign to nature; we can never be wholly antagonistic to the forces of which we are a part. Of the great stream of nature's flood moving on forever, we must form a part, albeit that part is but an eddy seeming to oppose the mother current. So out of harmony, so eddying, we may feel that we "have missed," that we have gone wide of the mark and done violence to the fitness of things. This harmony may present in a thousand forms, in a thousand different aspects, and the discovery of every one of them is an evidence of genius, and a work constructed in accordance with it is a work of genius. Not all genius is active and constructive; but it must ride the waves. All is right, all meets our notion of the fitness of things when we are out at sea as long as the ship rides the waves and accommodates her movements to every swell of the sea. But when she fails to keep time and the offended waves beat against her and break over her, we feel that she has failed as an exemplification of genius. If the ship stand still and keep time with the waves, she shows forth a passive genius; but, if a great head of steam or a brave spread of sail drive her forward, she types a constructive genius. So it is with the infinitely smaller waves that are the foundation of mental phenomena, waves which the breath of a thought may set in motion, and of which the great waves whereon the ships of ocean ride are only multiples. They have an order that constitutes mathematical relations, another order formulates music, another love, another religion, another language, in short there is a separate harmony for every field of mental work. Whoever perceives and drifts with that harmony is a passive genius, while he who produces under its full influence is an active constructive genius; a master, a creator.

BACTERIOLOGY IN ITS RELATIONS TO SURGERY.

Quite an unnecessary amount of acerbity has marked the introduction of the antiseptic treatment of wounds into surgery. Indeed there is no excuse for partisan contention on a subject that must ever be before us for investigation and for the settlement of any point that may come in controversy. Polemics and science are not usually good friends, for we are loth to accept a truth when it is opposed to that for which we have too warmly contended.

In the spirit of these sentiments we propose to inquire what is the present aspect of antiseptic surgery. As perhaps no one will pretend that the limitations of bacterial science have been reached, that we know all that is necessary to be known, it follows that we must reason by induction and not by deduction. We have simply to do with correctly recorded experiments and just inferences drawn from them.

All parties to the controversy in regard to antiseptic surgery agree, we believe, in the following points:

1. The air contains almost every where certain forms of micro-organisms that are capable of producing suppuration and certain noxious fermentative or putrefactive changes in exposed wounds.

2. There are certain chemical agents destructive to these microbes which may be applied to wounds in sufficient quantity to destroy them, and with little or no injury to the tissues.

3. That in the treatment of wounds, it is essential that these shall be got rid of.

It is also a matter of general report and well entitled to credit that results have been reached in surgery, and especially in the treatment of resections and lacerated wounds, that are favorable beyond all comparison over former methods of treatment.

But before coming to the conclusions that these facts would inevitably lead to, we must also take into consideration the further fact that several operators, notably Tait, Keith, and others, operating with studied disregard of chemical antisepsis, except in so far as it might be considered as represented by clean water, have been rewarded with most brilliant results. We instinctively look for a common ground upon which to base the secret of success in the two methods apparently so much at variance.

The answer seems to be absolute cleanliness, or rather it might be said such cleanliness as may be secured with pure water.

What reason then is there for the long array of chemical antiseptics or germicides? None, if we can secure in all cases, by means of water alone, the required degree of cleanliness. But hitherto this no one claims to have succeeded in doing. The surgery in which this required cleanliness has been attained with water alone has been of cleanly incised wounds. No one has got it or claims to have got it in compound fractures or other forms of lacerated wounds.

Again, even where a sufficient degree of cleanliness is attainable, simply by means of pure water, it is found inconvenient or impracticable to take the pains or spare the time necessary to effect it. In point of economy and practicability, then, antiseptic dressings commend themselves.

The Mexican woman will take her perfectly smooth washboard, sit down by the water's edge, and fold and rub her clothes until they are as white as snow. This, however, does not prove that corrugated washboards and boiling or steaming clothes should be discarded. But just as reasonably might we insist on this as to urge that, because in a certain class of cases as good results can be had with clean water in surgery as with antiseptics, the latter should be discarded.

THE ORIGIN OF PUS.

The view that a pus cell is only a dead leucocyte is very widely if not universally held, and is very likely true. There are some seeming exceptions, as when in inflammation the epithelial cells of a mucous membrane are shed rapidly. It is not easy to realize that these epithelial cells are but forms of leucocytes, which they must be if they become pus cells, and if only leucocytes can become pus cells. It is barely possible that when epithelial cells are being destroyed rapidly, leucocytes seize them and pass off with them as pus, leading to the mistake that the epithelial cells become pus cells.

But, however this may be, the thing which a leucocyte becomes when it dies depends very much upon how it is killed. There is reason to believe that only when a leucocyte is stung to death by some form of microbe does it become a pus cell. If one's hand is frozen so as to destroy the vitality of all the blood in it, killing all the leucocytes, and then warmed gradually, the dead leucocytes may all return into the circulation and be digested by the living ones with no harm whatever to the general system. If a few of them, however, are stung to death by microbes and set loose in the circulation, they promptly produce pyemia.

Something remotely analogous to this occurs in vegetables. If a seventeen year locust or any of many varieties of insects stings the twig of an oak, it will leave only a scar. But if the diplolepsis should sting the same twig, it will result in the production of a nut-gall. Different species of *cynips*, the *Aphis Chinensis*, and many other insects may, by stinging the twig, produce different nut-galls of various characters and shapes. Others still, stinging the same twig, will produce not a nut-gall but one or the other form of puff-balls, commonly known as "vinegar-balls." The reaction of the vital forces of the oak has in various ways differed according to the nature of the irritation. So the leucocyte, if killed by heat, or cold, or chemicals, remains perfectly innocuous; it is only when killed by the microbe that it becomes a source of danger to the blood. If all dead leucocytes were pus, the antiseptic material put upon wounds as dressings would only cause them to be covered with pus. Or, since the contents of the interior of cold abscesses injected into the blood are found not to be injurious, may we not continue to say that all dead leucocytes are pus cells, but that only such as are actually occupied by microbes are noxious.

THE SEMMOLA EPISODE.

Dr. J. B. Hamilton, Secretary-General of the late International Congress, is out in a communication to the Journal of the American Medical Association explaining the unfortunate misunderstanding involving the Executive Committee and Professors Semmola and Durante on a question of precedence.

Dr. Hamilton has been the subject of considerable censure for the part taken by him in the matter, but this censure comes invariably from those who have not taken time to fully consider the matter. Somebody was to blame beyond doubt, and circumstances doubtless also must bear a share of it. The situation of Dr.

Hamilton—and it is a credit to him that he should be spoken of as impersonating the committee—was a peculiar and embarrassing one.

The unfortunate dissensions in the medical ranks of the country rendered failure a matter of more painful apprehension than it would otherwise have been, and threw a much greater weight of responsibility on the management.

When the Congress opened a comparatively small number of the great men in medicine had put in an appearance, while the list of leaders in the general sessions was almost bare, from the failure of several eminent men whose attendance had been confidently counted upon.

Semmola alone, of the popularly known and very eminent foreigners, was on hand to add luster to the department of general medicine. So, when he threatened to withdraw from the Congress with his paper, the committee was faced on one hand by the spectacle of the barrenness of the general sessions, and on the other by the specter of criticism from those unfriendly to the management of the Congress. The committee, in their best judgment and with the best intentions, having to take one of the two horns of the dilemma, accepted a certain amount of self-stultification in the interests of the success of the Congress.

Had the entire profession of the country been at one and ready to sustain Dr. Hamilton in his decision, we should have felt disposed to censure him for not adhering to his first order, even though it involved the immediate adjournment of the Congress. But the situation was peculiar and difficult of adjustment, and when the work done by Dr. Hamilton, the executive ability shown, the dispatch of business, and withal the patience and uniform courtesy manifested by him come to be generally known and understood, his critics will treat him more kindly. It is no discredit to other members of the Executive Committee to say that no other man did half so much as Dr. Hamilton to make the Congress a success.

Married.—Tuesday evening, September 27, 1887, at Livermore, Ky., Dr. W. P. Ellis to Miss Iola Hackett.

Notes and Queries.

Editors American Practitioner and News:

I have read recently several articles on the means of controlling epistaxis. Professor Verneuil recommends a blister to the hypochondrium; others recommended touching the bleeding point with the thermo-cautery or with the solid nitrate of silver, plunging the lower extremities in hot water, plugging the nose with the cecum of a chicken.

While connected in practice with the late Dr. Joseph W. Thompson, of this city, I was called to see a gentleman of some fifty years of age, and of not very robust constitution, whose nose had been bleeding for some time, the family not being able to stop it with their domestic remedies. For two days all effort at stopping the bleeding was futile; many expedients were tried, astringents, cold water, compressing the nose and facial arteries, plugging the nose with an original device of Dr. Thompson's which had before proved successful in an obstinate case of epistaxis, that of introducing into the nares the esophagus of a sheep and distending it with water. The patient grew very weak, he was unable to raise his head or speak above a whisper. The situation was growing desperate; we were at our wits' end. On the third morning a sample medical journal from Memphis, Tenn., came to us. In looking it over there was a report of a severe case of epistaxis stopped by the local application of hot water. This we put to the test at once, and with magical effect. The bleeding was stopped in a few minutes. Some hours after there was a slight return of the hemorrhage, which was almost instantly controlled by reapplying the hot water. After this there was no return of the hemorrhage. The patient rapidly regained his strength.

The method we used was *douching* the nose with a fountain syringe, using the water as hot as it could be borne, passing it up the bleeding nostril and allowing it to return through the other, the patient inclining the head forward and breathing through his mouth. The stream of hot water was kept up until it came from the nose perfectly clear.

I have since then used hot water in severe cases of epistaxis, and it has in every instance acted like a charm. Very respectfully,

PADUCAH, KY. W. M. COWGILL, M. D.

A MARVELOUS VOICE.—Most people who have been to the "Wild West" show at Earl's Court must have been struck by the enormous vocal power displayed by Mr. Frank Richmond, the "orator," who explains the action of the realistic drama so vividly presented by Buffalo Bill's cowboys and redskins. The voice of this modern Stentor is a physiological curiosity in its way, for he has often made himself distinctly heard by an audience of thirty thousand persons in the open air. This throws Mr. Gladstone's famous "record" at Blackheath in 1874 altogether into the shade. Some idea of the vast amount of work which the "orator" gets out of his vocal organs may be formed from the fact that his running commentary on the show contains more words than the part of Hamlet, which, as is well known, taxes the powers of the best trained actors. This severe effort the "orator" makes, and makes successfully, twice a day for months together, under much less favorable acoustic conditions than players find even in the largest theaters. A few physical details respecting such a vocal athlete may therefore be interesting to some of our readers. For these we are indebted to the courtesy of Dr. Robert C. Myles, of New York, whose examination, it may be added, was confirmed by Sir Morrell Mackenzie. The vocal cords are of ordinary length, and not much above the average in breadth, but the vocal processes at once strike the observer by their extraordinary development. They project inward toward the middle line like two large spurs when the glottis is open. The great leverage thus given to the laryngeal muscles allows them to act to the best advantage with a minimum of effort. The larynx itself is of large size, and the pharynx is exceptionally roomy and well developed, while the mucous membrane covering it is remarkably free from granulations and roughness of any kind. The "orator's" vital capacity is not above the ordinary standard, but what breath power he has he utilizes to the utmost with the art of a trained elocutionist. Mr. Richmond, we believe, was on the stage before he occupied his present position, and the secret of his remarkable delivery lies more in the perfection with which he has learned to use his natural advantages than in any notable peculiarity of physical conformation.—*British Med. Journal.*

THE STENOCARPINE SENSATION: AN ATTEMPT TO IMPOSE UPON THE MEDICAL PROFESSION.—Our readers are doubtless familiar with the reports of Drs. J. H. Claiborne, Hermann Knapp, and Edward Jackson, concerning the so-called new local anesthetic, gleditschine or stenocarpine, which were published in the New York Medical Record, July 30th, August 13th, and October 1st, and Philadelpia Medical News, September 3d, in which gleditschine was claimed to possess remarkable anesthetic and mydriatic properties.

It will, therefore, be of interest to them to learn that Messrs. Parke, Davis & Co. announce that an investigation at their laboratory, of a solution purporting to be a two per-cent solution of gleditschine or stenocarpine, which was supplied by Messrs. Lehn & Fink, of New York, has developed the fact that this solution, with which the experiments thus far recorded have been made, contains six per cent of cocaine and a sulphate of a salt which further experiment is likely to prove to be atropia.

F. A. Thompson, Ph.C., also reports, after careful experiment with the leaves of *Gleditschia triacanthos*, from which gleditschine or stenocarpine is claimed to have been derived, that they contain only an infinitesimal percentage of an amorphous alkaloid devoid of anesthetic or mydriatic properties.

In the light of these facts it seems probable that the stenocarpine sensation should be classed with the hopeine fraud of malodorous memory, and that the physicians who have already published reports regarding gleditschine or stenocarpine have been the victims of a clever hoax.

BARON BERNHARD VON LANGENBECK, the "Nestor of German Surgeons," died of cerebral apoplexy at Wiesbaden on September 30, 1887, aged seventy-seven. He studied at Gottingen under his uncle, a famous anatomist and surgeon. In 1848 he was appointed Professor of Surgery at the University of Berlin, and Director of Surgery. He accompanied the German armies in the wars of 1864, 1866, and 1870; he was chief surgeon on the staff of the Emperor during the Franco-German war, and he was called to attend the Emperor after the assault of Nobiling. He was the instructor of the leading German surgeons of the present day. His contributions to medical literature date from 1836, when he wrote upon the anatomy of the retina. His best known works are those upon resections for gunshot wounds of the joints; and his name is also familiar in connection with the *Archiv für klinische Chirurgie*, which he edited ever since its establishment in 1860.

Mainly through his example conservative surgery obtained a sure footing in military practice. He was a bold and dexterous operator, and his remarkable results in the excision of joints are well known.

He was for many years president of the Congress of German Surgeons, and was only permitted to retire last year on account of his health and at his own earnest solicitation; he suffered from cataract, but was successfully operated upon last spring by Pagenstecher. His last appearance in public was at the Congress of Naturalists and Physicians at Wiesbaden, when, on September 19th, he opened the proceedings of the Section of Surgery with a few remarks. In his death German surgery loses her most distinguished exponent of his generation.—*Medical News.*

A PRIZE ESSAY.—D. O. Haynes & Co., publishers of the Pharmaceutical Era, Detroit, Mich., offer a prize of fifty dollars in gold for the best essay on the Mutual Relations of Physician and Pharmacist. The essayist should endeavor to show how the ideal harmonious relations between physicians and pharmacists, both as individuals and as represented in their respective organizations, may be best realized, and all competitors must be governed by the following conditions:

1. Any one interested in the subject may compete.

2. The essay must not exceed 2,000 words in length, and must reach us previous to January 1, 1888.

3. The MSS. must be free from the author's name, address, or other marks of identification, and we recommend type-writer copy wherever practicable.

4. The author's name and address must be inclosed with the manuscript on separate paper.

5. All the essays submitted in competition for the prize are to be the property of the Pharmaceutical Era, and to be published or not at the discretion of the editor, but names of authors will be suppressed if requested.

6. A committee consisting of five representative men chosen from the medical and pharmaceutical professions, to whom the essays shall be submitted anonymously, shall award the prize, and the names of the committee will be announced with their decision.

CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.—A meeting of the Executive Committee of the Congress of American Physicians and Surgeons, for the purpose of organization, was held on October 5th in the Hall of the College of Physicians, of Philadelphia. The special societies were represented as follows:

American Surgical Association, Dr. Claudius H. Mastin, of Alabama.

American Otological Association, Dr. Cornelius R. Agnew, of New York.

American Ophthalmological Association, Dr. D. B. St. John Roosa, of New York.

American Laryngological Association, Dr. J. Solis Cohen, of Pennsylvania.

American Neurological Association, Dr. L. Carter Gray, of New York.

American Dermatological Association, Dr. I. E. Atkinson, of Maryland.

American Climatological Association, Dr. A. L. Loomis, of New York.

Association of Genito-Urinary Surgeons, Dr. John P. Bryson, of Missouri.

American Association of Physicians, Dr. William Pepper, of Pennsylvania.

The committee was organized by the election of Dr. Pepper as chairman and Dr. Bryson as secretary.

It was decided to hold the Congress of 1888 in Washington, D. C., on Tuesday, Wednesday, and Thursday, September 18th, 19th, and 20th, respectively. The sessions of the Congress will be held in the evenings, leaving the mornings and afternoons free for the sessions of the special societies participating.

The following officers of the Congress were elected:

President, John S. Billings, M. D., LL. D., U. S. A., of Washington, D. C.

Vice-Presidents, the presidents-elect of all the participating societies.

Treasurer, Dr. W. H. Carmalt, of Connecticut.

The arrangement of the programme for the sessions of the Congress was referred to the President, the Secretary, and the Chairman of the Executive Committee.

New Exchanges.—*El Monitor Medico*, edited by Dr. José Casimirio Ulloa, and published under the auspices of the Free Academy of Medicine of Lima, has been sent us for exchange. We cheerfully accord to the wishes of the editor of *El Monitor Medico*, and confess to feeling complimented on being sought in exchange by the progressive and able publications of our sister continent.

We have also to acknowledge the receipt of copies of *Revista Argentina de Crencias Medicas*, a bi-monthly medical journal published in Buenos Ayres in the Argentine Republic, under the editorial direction of Dr. Pedro Layleyze, assisted by a strong corps of the leading medical men of the capital. Its pages amply evidence the fact that scientific medicine is not neglected beyond the equator. It is characterized by exalted tone, scientific zeal, and absolute freedom from offensive personalities as are all the exchanges that reach us from the far South.

General Greeley's Experience in the Use of Alcohol during Arctic Exploration.—In the Forum for August, General Greeley relates his experiences as follows:

The subject of alcohol was frequently and generally discussed during the winter at Cape Sabine, and all, without exception, concurred in the opinion that spirits should be taken after a day's labor was over, and not before or during exhausting work, nor while suffering from exposure that was to be continued. . . . Later, when the party had been slowly starving for many months, and when the supply of food was so diminished as to necessitate a greater reduction of rations, the pure alcohol on hand was issued as food, being diluted by about three times its weight of water. Each man received daily, perhaps a quarter of an ounce of alcohol, the effect of which was most beneficial. The general impression, with which I most heartily agreed, was that the alcohol supplemented food, and had a decided alimentary value. There could be no question of its beneficial effects as a mental stimulus to every member of the party under our unfortunate condition at Sabine.

The Malaria and Sun-stroke Scare.—Those who would have us believe that distinguished European physicians and surgeons were kept away from the International Congresss by representations that it would be dangerous for them to visit Washington on account of sun-stroke and malaria, pay a doubtful compliment to their intelligence and courage.

Typhoid Fever from Water.—Cincinnati is having an epidemic of typhoid fever attributed to the use of Ohio River water; St. Paul and Minneapolis are also having an epidemic of typhoid fever ascribable to Mississippi water; Paris has one due to Seine water; Louisville has a "smart sprinkling" due to pump water; while San Francisco, without either wells or rivers, but using water from mountain springs, is in the same line.

The American Public Health Association.—The fifteenth annual meeting will be held in Memphis, Tenn., on Tuesday, Wednesday, Thursday, and Friday, November 8, 9, 10, 11, 1887. The following topics have been selected by the Executive Committee for consideration: (1) "The Pollution of Water Supplies;" (2) "The Disposal of Refuse Matter of Cities;" (3) "The Disposal of Refuse Matter of Villages, Summer Resorts, and Isolated Tenements;" (4) "Animal Diseases Dangerous to

Man." It is announced that this selection does not preclude the presentation of papers upon other subjects, and that the secretary has already been notified that papers upon other interesting topics will be presented.

POISONING WITH IODOL.—Pallin (*Hygeia*; *Ctrlbl. f. Chir.*) gives an account of a case of necrosis of the clavicle in which an operation was performed for the removal of a sequestrum, and seventy-five grains of iodol were applied to the wound. During the evening of the same day the patient became delirious, and on the following day his temperature was 102.2° F., his pulse was 136, small and irregular, and he vomited and was apathetic. The urine showed traces of albumen and a weak iodine reaction. Although the dressing was changed at once, all the iodol being washed out of the wound and bismuth applied in its place, the symptoms of poisoning lasted four days longer, and for a fortnight iodine was to be recognized in the urine.—*New York Medical Journal.*

DRINKING-WATER AS A CAUSE OF TYPHOID FEVER.—The water used for drinking is so commonly recognized as the chief vehicle of the germ of typhoid fever that even isolated instances in which it is evidently not at fault are of interest. A striking example was lately reported to the Société de Médicine of Nantes by M. Bonamy, in which the occupants of two houses used drinking-water from the same source, but only one of the households was attacked with typhoid fever. That family, however, suffered severely, as there were six cases and four deaths.

THE anatomist Gruber, during forty years of his teaching career, has taught eight thousand Russian surgeons, dissected thirty thousand bodies, and written more than five hundred anatomical books and pamphlets.—*American Lancet.*

THE CROWN PRINCE.—Dr. Morrell Mackenzie says that the Crown Prince's condition was excellent, and that there was nothing to justify the alarming rumors current with reference to his health.

GRAY'S ANATOMY (NEW EDITION).—Messrs. Lea Brother & Co. announce that a new edition of this classic work will appear early in November.

"While thoroughly revised, the new edition possesses a marked feature in the use of colors in illustration wherever they can be of service in enabling the eye to more readily follow the details of anatomical construction.

"Notwithstanding the unavoidable increase in size, the issue in black has been retained at its old price—$6 in cloth, or $7 in full leather—while for that in color but $1.25 extra will be charged."

PTHALATE OF MORPHINE is highly recommended, as compared with other morphine salts, by Bombelon (*Pharm. Ztg.*; British and Colonial Druggist). It dissolves in five parts of water, and does not cause irritation when injected subcutaneously. Care is necessary in the preparation, as it is not obtained by crystallization, but by partial evaporation and scaling.—*New York Medical Journal.*

A CENTENARIAN PHYSICIAN.—Dr. Neklewitsch, of Loske in Poland, has lately died at the age of one hundred and nine years, having a quarter of an hour before his death seen and prescribed for a patient. Sixteen years ago he had a paralytic stroke, affecting both his feet, so that he has since that time been obliged to confine his professional advice to the consulting-room.—*Lancet.*

GIFTS TO HOSPITALS.—The Misses Drexel, of Philadelphia, have given $30,000 to St. Agnes Hospital of that city. Ex-mayor Harrison, of Chicago, has given $1,500 to Michael Reese Hospital of that city in the name of his deceased wife, Margarette Stearns Harrison.

COUNTERFEITING THE LABELS OF MERCK & CO., OF DARMSTADT.—The New York Medical Journal of October 15, 1887, states that action has been begun against a firm of New York druggists for counterfeiting the labels of this well-known German firm.

IN pregnant women renal colic frequently produces abortion.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. IV.
[NEW SERIES.]
LOUISVILLE, KY., NOVEMBER 12, 1887.
No. 10.

> *Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.*—RUSKIN.

Original Articles.

VILLAGE HOSPITALS.*

BY WM. SYMINGTON BROWN, M. D.

Many persons sneer at the assertion that the practice of medicine is not a trade. I do not propose to fully discuss that question in this short paper; but it seems to me necessary, as an introduction to the subject, to do so very briefly.

Trade, as at present conducted, is based on selfishness. To buy in the cheapest market and sell in the dearest, without regard to the welfare of those he deals with, is the trader's creed and practice. Self-interest ranks first, all other motives are subordinate. A trader conceals the cost and quality of his goods, and has no scruples about selling an article which his customer does not need, or which is likely to injure him.

A true physician, on the other hand, has no professional secrets. If he discovers a new remedy, he makes it known to the whole profession: he who tries to conceal a means of relief loses caste and is liable to expulsion. In treating a patient his own pecuniary interests are always a secondary matter. The welfare of the patient outranks all other considerations in the mind of a good physician. That is our standard; and the fact that some members do not act up to it only proves the weakness of human nature. The standard itself is higher than that of the trader.

Public hospitals only exist in cities. Till within a few years they were confined to large cities. What I suggest is, that small hospitals should be established in every town throughout the country. Some places need them more than others. Manufacturing towns like Stoneham and Woburn require them most of all; but I think that there are very few villages containing one thousand inhabitants which would not be benefited by the erection of a small hospital.

In a town like Stoneham there are always hundreds of young men and women who live in boarding-houses. In most cases, each bedroom contains two inmates, sometimes three or four. When one of these is taken sick—say with typhoid fever—it is next to impossible for the physician to carry out suitable treatment. Nursing, under such circumstances, might as well be one of the lost arts; and as for diet—boarding-house diet!—it is much more likely to kill than to cure. A small infirmary, on the outskirts of the village, with a chance for pure air, ventilation, well-cooked, suitable food, and good nursing, might turn the scale in the patient's favor. We have made great progress in the training of nurses. Every surgeon knows how much depends on the after-treatment. Physicians are well aware that early care decides the fate of many serious cases.

Such an institution would also prove a great boon to a certain class of young wives as a lying-in hospital, to which purpose a room should be specially devoted.

Infectious diseases, like scarlet fever or variola, would require a separate building or a tent. The hospital-tent which we used at Lynnfield, with a frame-work and wooden floor, is better than a house for patients of any kind; and it can be disinfected at small cost.

The next point to settle would be, How is a village hospital to be supported?

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*Read before the Middlesex East Med. Society, Oct. 5, 1887.

There are two ways: first, by the town in which it is situated; or, second, as a private institution. Of these two methods, I prefer the first. There is no good reason why a town should not have a public hospital as well as a public library. The one is at least as much needed as the other. Within ten years, I prophesy that that will be the general sentiment in Massachusetts. Already there are several small hospitals in Lynn, Salem, Newton, Cambridge, and Worcester.

A resident physician and superintendent would, of course, be needed, who would also attend patients receiving help from the town; but I see no objection to making an arrangement whereby paying patients in the hospital might be attended by any regular physician they chose to employ, and, with this object in view, the charge for their board should be a separate one.

In those towns unwilling to establish a free hospital the private hospital could be tried. A young physician, with sufficient funds, might find this is a good investment, and an excellent introduction to general practice. When he thought it advisable, he could probably sell out the estate to a new beginner, or to any competent successor. In England, where such transfers are more common than here, a young man often pays as much as $5,000 for a practice or even a partnership. We are beginning to copy the British plan; village hospitals might take the place of medical clubs.

A secondary advantage connected with the establishment of country hospitals would be the impetus imparted to the acquirement of surgical skill. At present we send most of our surgical cases to Boston. If we had a proper place, and a competent nurse, these cases could be treated at home. Such an institution could also afford to keep certain expensive instruments and appliances not usually owned by the country practitioner.

The principal objection urged against village hospitals is, that they might curtail the practice of country physicians in much the same way that dispensaries in cities absorb cases which would otherwise come to beginners. I think there can be no doubt that the founding of numerous dispensaries in connection with great city hospitals and colleges is being carried to an injurious extent, not merely hurtful to the younger members of the profession, but also to the recipients of medical charity. Patients come to the Massachusetts Eye and Ear Infirmary fashionably dressed and in carriages, and are not ashamed to be treated at a "charitable" institution.

The same complaint is universal. In London, New York, Boston, Philadelphia, thousands of patients are daily treated gratuitously who are perfectly able to pay. Without being censorious, I may be allowed to doubt the efficiency of the treatment. In the account for 1887 of the Casualty Department of St. Bartholomew's Hospital, London, Dr. Bridges states "that 159,947 patients were attended to at that institution in the course of the year. This is at the rate of forty per hour, all day long, for six days a week. As, however, they are in fact for the most part disposed of between nine and eleven o'clock, it is quite evident that special dexterity must be shown in the questionable feat. Dr. Bridges, who is rather a slow worker, sees his patients all through the year at the rate of one minute and a quarter for each. For the use of a large proportion, a certain number of drugs and lotions are kept for common use. Small tickets bearing the printed initials of these medicines are supplied to the physicians, who give them to the patients, who show them at the windows with a bottle, which is at once filled from the corresponding jug M or N as the case may be."

I presume that we have not quite arrived at the degree of dexterity here depicted. In the two regiments I served in during the late civil war, the average time for each patient at sick-call was fully five minutes. Dr. B. Joy Jeffries tells me that about the same amount of time is consumed with each patient at the Massachusetts Charitable Eye and Ear Infirmary, Boston. More time is taken up with newcomers; but the average is not less than five minutes. The best way to avoid crowding and hurried work is to establish village hospitals.

This brings us to the point we started from. I do not think that small infirmaries would materially reduce the incomes of country doctors; probably not at all. But even if it did, I reiterate that our profession is not a trade, and that the welfare of the whole community comes before personal emolument.

STONEHAM, MASS.

DEFORMITIES OF THE HEAD AND NECK.

A Clinical Lecture.

BY JOHN H MORGAN, F. R C. S.*

The following notes are from the first of a series of lectures at the Hospital for Sick Children, Great Ormond Street, by Mr. Morgan.

After some general remarks on the prevailing view regarding the causation of abnormalities Mr. Morgan proceeded to speak of those found on the head.

The first in importance, as well as in interest, among these congenital aberrations is that tumor which is produced by the protrusion of some parts which are normally contained within the skull and which, when consisting only of the membranes of the brain, is called meningocele. When with this some portion of the cerebrum or of the cerebellum is also protruded, the term encephalocele is employed; and if besides there is added some of the membrane which lines the ventricular cavity, the term used to signify the condition is hydrencephalocele.

By far the most common situation for this occurrence is at the occipital region, and we will for the present consider the conditions usually found in such a case. The tumor may vary from a very small size to an extent in which it exceeds in size the head of the patient. The skin covering it varies in appearance with the amount of distension. That is to say, that being the natural skin of the scalp, it is covered with the fine long hairs when the tumor is small, but as its size increases the hairs are more widely separated, the surface becomes glistening, and often ulceration takes place at the part most distant from the circulation; at the same time large blue veins cover the part nearest to the base and converge toward the pedicle of the tumor. So thin, indeed, do the coverings of the tumor become that, as in many cases of spina bifida, it is a marvel how any nourishment can be conveyed The contents of this sac consists of an increased quantity of cerebro-spinal fluid; this at an early period being clear and translucent there is little impediment to the transmission of light, a fact of some assistance in determining the presence or absence of any cerebral tissue. Gentle pressure upon such a tumor may or may not reduce its size; that is, some of the fluid may be pressed back into the cranial cavity, which is an indication of a pretty free communication between the two. This return of fluid may cause some symptoms of cerebral pressure. On the contrary it must not be taken for granted that no intercommunication takes place when this phenomena can not be produced. If brain matter is included in the protrusion some pulsation may be observed in the sac, but this is not diagnostic, since pulsation may be conveyed through a large opening. In the same way, crying, coughing, etc., may increase the tension of the tumor.

The skin at the base of the larger of these swellings is gathered into numerous folds, and sometimes, especially when some of the fluid contents has been drawn off, the finger can detect the marginal outlines of the hole where the bone is deficient. These are the outward indications of a meningocele. If we examine its interior we find that attached to the skin is the expanded portion of dura mater, and intimately attached to this is the vascular arachnoid, though occasionally an interval may exist between the two membranes. As a rule the cavity is single, but sometimes it is found to be divided up by septa; and as the contents of these is often mixed with blood, their existence is probably the result of the subacute inflammation which takes place. In fact this inflammation is usually the cause of death. On examination of the site of the protrusion it is found that the deficiency of bone exists, sometimes above sometimes below the occipital protuberance. When situated above it is due to the incomplete ossification of that tabular portion of the occipital bone which is the uppermost of the four portions of which the bone consists for some time after birth. The fissure between the centers is later in closing than the lower, which is almost obliterated at birth. Thus there is usually a portion of the bone between the base of the tumors and the foramen magnum. When the tumor protrudes through the lower portion of the bone it may pass into the foramen magnum and be accompanied by a spina bifida, owing to deficient ossification of the lamina of the upper cervical vertebra. Such a case was related by Mr. T. West, in the Lancet, as having occurred in a girl who died of hydrocephalus at eighteen months, having a meningocele associated with spina bifida of the cervical region. There was a tumor the size of an orange at the back of the skull, an opening two inches in length by one in breadth extended from the foramen magnum backward almost to the occipital protruberance, but there was no communication with the interior of the brain. The posterior arches and spinous processes of the six upper cervical vertebræ were entirely wanting. Lawrence, in the Lancet, 1857, describes a large tumor from the occiput, neck, and between the shoulders, which was probably identical with the above condition.

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*Reported by E. S. McKee, of Cincinnati, O.

The portion of the brain included in an encephalocele may be part of the cerebellum, but more frequently it is from one or both of the cerebral hemispheres that the protrusion takes place. In a typical case which I dissected some years ago, there protruded backward from the left hemisphere, through an opening in the occipital bone, a narrow band of brown substance about one half inch wide and three fourths inch long, which immediately outside of the skull expanded into a bulb-shaped mass rather larger than a filbert. The lateral ventricle was much enlarged and prolonged backward. Instances are not wanting to show that the opening between the cyst and the cavity of the skull may become spontaneously closed. An instance of this is quoted from the catalogue of St. George's Hospital Museum by Mr. Holmes. The cyst was observed at birth in the region of the anterior fontanelle. It was punctured and clear fluid evacuated, but soon filled again. The child died of bronchitis, and the cyst on examination proved to be of the nature of these tumors, but no communication with the skull existed, it having probably been cut off by the visceral arachnoid's becoming firmly attached to the parietal layer at the circumference of the opening of the pedicle of the cyst.

A large quantity of clear fluid was also found in the posterior half of the cavity of the arachnoid, where it was perfectly circumscribed. The third and lateral ventricles were much expanded, and formed parts of the walls of the cavity containing the fluid within the skull. The posterior half of the falx major was bifid. The pedicle of the cyst, which was merely blocked up by a membrane, was most probably formed by the dura mater and arachnoid. A small hole existed in the left parietal, which was stopped up by the membranes of the cranium. Other cases are on record which lead to a similar hypothesis. In the specimen here shown the conditions just described are well illustrated. In this occipital bone is a rounded opening, through which passed the membranes that dilated to form the cyst. In the other specimen the fluid in the tumor communicated with that in the lateral ventricles apparently by a narrow channel in course of the straight sinus.

I would call your attention to two facts in the specimen before you. In this bone you see that, besides the opening which exists in the lower part of the occipital bone, there are several spots in which the osseous elements are so far diminished as to leave little but membrane to form a covering to the brain cavity. The second observation is one to which I have already alluded, namely, that these deformities are not infrequently accompanied by errors of development in the parts. For example, in the first of these you perceive that there is an entire absence of the middle lobe of the cerebellum, while in the cervical enlargement of the spinal cord a large gap exists in the place of the posterior median fissure. Similarly in the other case have existed a small spina bifida at the lowest part of the lumbar spine, and a cyst the size of a large marble communicating by a narrow, smooth channel with the sheath of the spinal cord. In like manner we find this condition co-existing with malformation of the heart and other parts, with harelip and supernumerary auricles. This leads us to inquire whether this has any bearing on the causation of the affection. We know how great is the formative energy of the brain at an early period by the results of the pressure of developing convolutions in cases of cranio-tabes, in which the state of the bone is reduced in places to the membranous condition seen in the occipital bone. Again, these children come at the middle or at the end of large families of sound constitution, and there is nothing hereditary except the weakened condition of the mother by reason of frequent child-bearing, which fact accounts for so many other deformities. Besides this the children thus affected have the appearance of health in all other respects at the time of their birth, and it is not till some time after that the effect of chronic inflammation of the membranes becomes evident, and appearances identical with those of hydrocephalus become developed. This seems to my mind to indicate that the error in the first place is in the deficiency of bone, and that some of the cranial contents, being pushed through the space, an unequal pressure and control is exercised on the parts escaped. This by hypersecretion becomes irritated. A chronic inflammation then arises which, gradually spreading to the membranes lining the ventricles, allows them to become distended and even to force the cerebral matter through the aperture. That the protrusion takes place early during fetal life, we may suppose from the time at which these segments of the occipital bone ought to become united. This would account to some extent for the hydrocephalus or ventricular dropsy occurring when the aperture is small or even obliterated. An adequate pressure not having been exercised upon the brain, the membranes have become altered and hypersecretion has resulted.

The lecturer here demonstrated a number of specimens of the condition he had been describing.

He did not propose to discuss the diagnosis of such tumors, which, when situated in this region, admit of little difficulty. When a meningocele appears in another part, its rarity and its somewhat different conditions render its similarity to a vascular growth or a congenital cyst much greater. The more frequent existence of such tumors in such situations renders the diagnosis less simple. The presence of the conditions above enumerated will serve to characterize this form of tumor, and we shall be better employed in considering the characteristics of such tumors when they occur in other situations.

Still, confined to the middle line of the skull, such protrusions are sometimes found upon the vertex of the head, as in the case already mentioned, where the communication with the interior appeared to be obliterated, although there existed a dropsical condition of the ventricles. In the Clinical Society's Transactions, volume ix, Mr. Hutchinson relates the case of a child, of four years, whom he had first seen soon after birth, on account of a large and nearly hemispherical tumor in the middle line of the top of the skull and frontal region, and which, when she was four years old, was a soft swelling an inch and a half high and probably about two inches across. This began a little behind the coronal suture and passed a little backward along the whole length of the sagittal. The tumor was soft, but seemed to have pushed its way from within outward. It received impulse both from the circulation and from strong respiratory movements. It was supposed that, from a want of development of the frontal bone and anterior parts of the parietal bones, the brain had caused absorption of the bone and bulging in the portion of the sagittal suture.

Further, anteriorly, the most frequent situation is at the root of the nose, sometimes involving the forehead, sometimes lying exactly in the middle line, sometimes the base arises on one side and projects therefore from the inner corner of the orbit. To judge from the drawings in German works, some of these tumors attain a large size, and the description of the anatomy already given would, in such cases, probably be equally applicable. The most usual condition is such as is here depicted from a case which was brought to this hospital some years ago, and which was recorded by Dr. Stevenson in the Clinical Society's Transactions, volume xiv. It was the eighteenth child, and three weeks old when brought to the hospital. The description is as follows: There is now a cleft in the cranial and facial bones extending from the posterior fontanelle to the front teeth. In the place of the nose and in the center of the face and forehead there is a swelling with two integumental bosses on it and a transverse imperfect cleft. The swelling communicates freely with the cranial cavity. A free impulse is produced on percussion. The child died at the age of four and a half months.

A similar case is recorded by Mr. Shaw in the Pathological Society's Transactions, volume ix.

The German authors depict similar tumors in the temporal region and in the suborbital, and in both cases the sac covering the swelling is small and the tumor smooth and even upon the surface. The similarity is very close between these conditions and those of a congenital cyst so commonly occurring in this region.

It is stated that out of seventy-nine recorded cases fifty-three were in the occipital region. In six cases the subject of the malformation reached adult age. Perhaps these statistics would bear revision. Probably the most remarkable and unique case is one to be found in the eighteenth volume of the Pathological Society's Transactions.

Little need be said with regard to the surgical treatment of these deplorable cases. It resolves itself into leaving the cases alone except in some rare instances when it is possible to exercise some compression, and so temporize in the hope that the aperture of communication may close. The cause of this fatality has already been pointed out, namely, that there co-exist with or follow, as a matter of consequence of this condition, chronic inflammation of the lining membrane of the ventricle, which gives rise to this distension, and to considerable intracranial pressure, so that the shape of the ventricle may be distorted and the brain substance protruded. Whether this be a cause of the hernia or result from it is difficult to determine, as I have suggested, but the fact of its almost constant pressure is an impediment to any action. Cases are recorded in which injections of iodine or of Morton's iodo-glycerine solution have been tried, and one is stated to have been successful. Other cases have been operated on in various ways and by various means without fatal results.

(Path. Soc. Trans., vol. ix.) Encephalocele presenting at root of nose, by Mr. Shaw. Child three months; intelligent. Seventh child living, two dead. First noticed at birth; gradually increased; grew from root of the nose between the eyes; its contour uniformly convex and regular except where a small diverticulum projected on right side; skin sound and natural, adhering generally to walls of tumor which seemed to consist of dense membrane; at base a well defined circular opening between eyebrows and root of nose; below this the bones were natural. The tumor could be compressed to level of surroundings, but quickly refilled. Pulsation synchronous to pulse and also corresponding to variations of venous circulation.

(Path. Soc. Trans., vol. xviii, 250.) Patient born with harelip and cleft palate, the cleft of lip being central. A large bluish-red tumor, size of a small fist, hung out of mouth overlapping chin and resting its base on sternum. The pedicle could be followed up to the right of side of septum, and appeared to end in interior of nose. Not compressible. Ligatured high up. It was found that the pedicle entered the skull immediately in front of the sella turcica and was attached to an oval tumor which was covered by a thin membrane and surrounded by the brain. The tumor consists of gray brain substance. The lateral ventricles were much dilated. There was also malformation of the heart.

I stated that I purposely avoided the question of diagnosis in this subject, because the various conditions with which it bears affinity are pointed out in the ordinary text-books. It is unnecessary to discuss the question of cephalhematoma, which is familiar both in its appearance and in its pathology to most who have practiced midwifery. Nor will I discuss to-day the very interesting subject of those inclusion cysts which are found more frequently than tumors, such as we have been discussing, in regions which are common to both.

I will conclude my remarks to-day by relating a few anomalous cases, any of which might be regarded as of unusual occurrence, and some of them as giving rise to difficulty of diagnosis, especially in connection with the subject just discussed. The first case is that of a child born of healthy parents. The first child died of abscess behind the ear and bronchitis. The second was active and healthy. This, the third, was born healthy, but small, and no instruments were used, though the labor was prolonged. At birth there was noticed above the anterior fontanelle a round, soft swelling, red on surface, which had not increased when patient was brought to the hospital. I then found in the above position a soft, smooth, fluctuating swelling raised about one half inch above the surface of the head and having a transverse diameter of about an inch. It moved freely on the surface of the fontanelle, which lay directly below it. There was slight evidence of cranio-tabes; a story was given of its having suffered from snuffles after birth. It had no sores about the body, and there was no evidence in the child's cry of syphilitic affection of the larynx. Still there was an impression, probably from the views on the subject of cranio-tabes now prevailing, that the swelling might have a syphilitic origin, and the patient was placed on a course of gray powder. At first the tumor did not diminish, but the cranio-tabes became more marked. In the course of three months, however, this had disappeared, though the tumor had altered but little, and indeed had not decreased in size at the end of six months, when the child became very ill with bronchitis and I lost sight of it.

This was very probably a case in which the communication with the external sac became obliterated, looking to its congenital origin, its situation, and the presence of cranio-tabes, which are always present in these cases.

The next case in this connection was a boy aged four, who was brought to me on account of a lateral curvature. He was a sound looking lad, of healthy parentage, the eldest of three children. My attention was called to his head, and I found a small pulsating swelling, about three fourths inch in diameter, at the back of the head, on the prominence of the occipital bone. This could be easily emptied by pressure, but could be felt to pulsate continuously and synchronously with the pulse in the posterior auricular artery. The pulsation was feeble and could easily be controlled. No source of communication with the interior of the skull could be detected. There was no history of a fall or a blow.

This was, I believe, a case of aneurismal varix, or a congenital dilatation of one of the larger arteries of the skull.

London, Eng.

INGROWING TOE-NAIL, AND THE BEST METHOD OF TREATMENT.

BY W. C. DUGAN, M. D.

Professor of Anatomy and Clinical Surgery, etc., Hospital Medical College.

There is probably no condition in the whole range of minor surgery that is more calculated to incapacitate one for business, to destroy the best and sweetest disposition, and that will yield more kindly to proper treatment than an ingrowing toe-nail. Ingrowing toe-nail is a misnomer, as it is the flesh growing upon the side of the nail, and not the nail into the flesh. It is sometimes called "Doodism" (Weir), inasmuch as it is one of the evil effects of wearing the sharp-pointed shoe. It is generally found on the big toe and on its outside, though it may be on the other side, but it is very rare. By far the majority of cases—I will say nine out of ten—are due to a misfit shoe exercising undue pressure at certain places.

Treatment. Many operations have been performed, all giving more or less relief, if both the patient and surgeon have the gift of patience and perseverance. The first indication here, as in all surgical disorders, is to remove the cause; that is, lay the sharp-toed shoe aside, and get one that does not produce any lateral pressure. This is all that is necessary if the case is seen early and shoe applied. But as a rule we are not consulted until all the so-called domestic remedies have proved unequal to the demand—time having having wrought ravages that yield not to such gentle measures. Failing this, we resort to one of the following operations, to wit:

1. The training method. This is done by prying up the edge of the nail, and by means of a probe push some small pieces of cotton or lint under it, in this way protecting the flesh from the nail. Some use as an adjuvant to this method nitrate of silver applied to the ex-

uberant granulations which override the nail. The cotton should be removed three times per week, toe cleansed, and fresh cotton applied. This will relieve many patients if commenced early and properly carried out. It takes several weeks, as a rule, to overcome the condition. I have seen such patients under treatment at the college and dispensary for months, and then not be cured. So the result is not by any means assured. It is difficult to get the patients to carry out your direction, as they grow tired of it in the course of a few weeks.

2. The removal of the entire nail. The indications for this operation are rarely met with. It should never be done unless

(*a*) The nail is very thick, as the result of chronic onychia. This is generally found in old people, especially when they have some nervous disease, and those who have never observed the dictum that "cleanliness is next to godliness."

(*b*) Nails which have been mashed, and, in consequence, an ill-formed one has developed.

(*c*) If the condition has long existed, the whole of the last phalanx being involved, then nothing short of the entire removal will do much good.

There are several objections to the operation—

(*a*) It is not necessary in the majority of cases.

(*b*) If the matrix be not entirely destroyed, there will be developed a rudimentary nail to catch the stocking each time the toilet is made, and in that way give great annoyance.

(*c*) It keeps patient too long from his business, as he can't wear his shoe for some time.

3. The removal of only part of the nail. This too is not a very promising operation, as it is only temporary, the trouble returning with the growing out of the nail.

But a better operation than either of these is the removal of the overriding flesh, liberating the nail, as it were, giving it an opportunity to spread out. The operation should be thorough, cutting away all the tissue that has grown up over the side of the nail; but at the same time I would advise against the removal of a big "slice" from the side of the toe, as it requires too long for it to heal by granulation. In removing the tissue the knife should be so held as to be at a right angle to the nail, so as not to sacrifice too much of the side of the toe. The wound should be treated with iodoform and gauze. While this is in many respects by far the best operation in the largest number of cases, it too is objectionable, as but few patients are willing to give you so much of their time. Now, to meet the objection, I have converted the wound into an ordinary plastic operation, closing it, thereby getting union by first intention rather than by granulation. The first part of the operation is the removal of the overriding flesh, as in the preceding. After the nail is thoroughly liberated I close the wound as follows: I prefer catgut for the suture. The needle should be short, sharply curved, with the edges rounded off so that when passed up under the nail and turned upon itself it will not cut its way out. This accident happened me many times, but by taking an ordinary surgeon's needle and rounding off its edges this will not befall you. Introduce your needle a quarter of an inch from the outside of the wound, carrying it well down; then bring it out just a little less than half way across the wound. Then re-introduce it just internal to the point of exit of the first. This should be passed quite up under the side of the nail while the assistant is holding it up as high as possible, then turned upon itself and brought out at the edge of the nail and cut off, and several more applied in the same way. The sutures should be about one sixth of an inch apart. After the introduction of all the sutures the wound should be closed by commencing at the lowest one first, drawing it well together, so that when the last one is tied all the surface will be covered and the line of suture placed just external to the margin of the nail. The wound should then be dressed with iodoform and gauze, and left for one week. The wound should by that time be all united.

I have found in some cases that it was almost impossible to get a good hold under the side of the nail, owing to great hypertrophy of the nail. I drill an opening through the nail in such cases, and after taking a deep hold on the outside of the wound, I pass both ends of the suture through the eye of the needle, and then bring the needle out through the opening previously made in the nail. After they are all applied, the wound can be closed; by making firm traction on both ends of the suture the outside part of the wound can be well drawn up to the nail. The suture should then be secured either by tying it over a quill or by passing a split shot down on both ends and fixing it there with a pair of forceps.

The wounds heal very kindly, and the patient need not be detained from business but a short time. I have done the operation and the patient not stop work, but it would be best for him to rest for a few days.

LOUISVILLE.

Societies.

LOUISVILLE SURGICAL SOCIETY.

Stated meeting, Monday, October 3, 1887, President D. W. Yandell, M. D., in the chair.

Dr. W. Cheatham read a paper on the Indications for and against Enucleation.

In discussion, Dr. J. M. Mathews said that he should favor the operation in malignant disease of the eye with a view to removing the disgusting appearances, notwithstanding the fact that in such cases the brain or liver was usually secondarily involved. The prime question in dealing with cancer, whether in the eye or elsewhere, is, when should the surgeon decide whether or not to operate? Should he operate when the cachexia is established or when the neighboring glands are involved? Some answer one way and some another. Be it as it may, most cases operated upon for cancer die.

Dr. H. H. Grant said that in the management of eye cases the general surgeon is often brought to feel that he needs light. This paper certainly throws light upon an important topic. He asked whether in gunshot wounds of the eye we should enucleate before or after inflammation sets in.

Dr. D. W. Yandell said that the fact as stated by Dr. Mathews, namely, that nearly all cancers return and end fatally is not the question, but rather whether by operating we can prolong life. It is the consensus of surgical opinion that removal of cancer when early and thoroughly performed does prolong life, and it is an established fact that by prompt operation epitheliomas are often cured, while many other cases operated on give surcease of anxiety and trouble for years. He assisted the elder Gross in the removal of an epithelioma from the lip of a patient who lived thereafter twenty-five years. He has known of the removal of real cancers by charlatans with caustics, with the result that the patients' lives were thereby prolonged six or eight years. He has removed a number of malignant growths that did not return, death, from intercurrent causes, occurring eight or ten or fifteen years later. The statistics of Gross have demonstrated that in the more malignant forms of cancer the average life is greater in cases operated upon by three years than those left to nature. Dr. Cheatham is, by virtue of his specialty, best able to give the statistics in this matter as regards the eye; he states that as a rule in such cases the return of disease is quite rapid. Formerly he was wont to say, like Dr. Mathews, "why operate? but of late years he has learned more, and operates boldly." He advocates operating whenever it is possible or reasonably possible to extirpate every thing that is diseased. Gross would not remove a breast unless he could take away every diseased structure in the axilla. In cancer of the breast I have seen him begin the operation in the axilla, and if successful in removing all the involved tissues there, to then extirpate the mamma. I have myself operated in a similar manner. Dr. Cheatham wisely brings out the point that much depends upon the external surroundings of the patient. This is always a strong point for the consideration of the surgeon. I sometimes remove the breast to give the patient temporary immunity from pain, prostration, and the foul odor; not with the hope of a cure. To leave any part of a malignant growth is not to lengthen the patient's life.

Dr. W. O. Roberts exhibited an ovarian tumor recently removed by him.* It was remarkable for its great size. He reported the case briefly from notes, stating that he would soon prepare a more extended report.

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*AMERICAN PRACTITIONER AND NEWS, Vol. 4, No. 8.

Dr. Yandell said that an interesting feature in this case was the enormous degree of general edema by which it was complicated. The abdominal walls of the patient external to the muscles were more than an inch thick, and the lower limbs were proportionately enlarged. To-day the patient is so thin that those who saw her at the time of the operation would not recognize her For days subsequent to the operation she had no thirst, and yet passed a very large amount of urine. Her only bad symptom during this time was a persistent cough, due, he believed, to edema of the lungs. He believed the recovery in this case was due to the complete integrity of the patient's kidneys; from eighteen to twenty ounces of urine were withdrawn by catheter every six hours.

Dr. A. M. Vance asked if tapping the limbs would not have been a good procedure in this case.

Dr. Roberts replied that it would not; that such procedure would be unavailing unless we could remove the cause of the edema. He further stated that such procedure was something quite dangerous. He once saw a patient with anasarca from cirrhosis, whose limbs had been punctured by a needle doctor. The procedure was followed by extensive gangrene.

Dr. Grant said that he had been taught by Gross, that Barton's fracture was of exceedingly rare occurrence and that the diagnosis of such a condition could be made only by dissection of the parts *post-mortem* or after amputation. He had so taught this doctrine, and believed that it had led him into error. He then reported a case occurring in the person of a girl five years of age, who, falling from a fence, had sustained an injury of the fore-arm which he had diagnosed Colles' fracture, in which resulting deformity had shown him that it was a Barton's fracture.

Dr. Vance remarked that in all cases of displacement or fracture at five years of age there would be pronounced correction of deformity by future development.

Dr. Roberts agreed with Dr. Vance, and remarked that, in all cases of displacement of the lower end of the ulna, deformities were much more apt to occur in elderly people.

Dr. Vance reported a case of compound comminuted fracture of the skull, in which, twenty hours after the injury was received, the patient was able to walk about and even to mount the table preparatory to operation for the removal of the depressed fragments of bone. He also reported the case of a negro who had been struck by a stone which crushed the left frontal bone. In this case he was surprised to note a remarkable thinness of the skull. At the time of his first visit the patient was in violent convulsions. In both this and the previous case operative procedure was conducted under full antiseptic precautions. Both patients recovered without inflammatory complications.

Dr. W. L. Rodman reported the case of a little boy who fell on a slate pencil which penetrated Scarpa's triangle just below Poupart's ligament. The wound bled profusely a dark, continuous stream. He found a complete absence of pulsation of the femoral artery on the wounded side. Hemorrhage stopped in an hour. He thinks that the femoral vein was penetrated, and that the blood consequently extravasated by its presence cut off the pulsation. There has been no more hemorrhage; the wound healed and pulsation returned in two days. The tissues over the injury were pliable, and pulsation could all the time be felt over the external iliac and tibial arteries.

Dr. Roberts said that the absence of pulsation was doubtless due to a clot over the artery; the case should be carefully watched. He once saw a case of gunshot wound through the thigh that apparently made a good recovery. But two and a half weeks later a pulsating tumor made its appearance over Hunter's canal. In a few weeks it was the size of a hen's egg. He directed treatment preparatory to an operation. The day following the patient felt something give way, and was put at once to bed. When the doctor reached him he found him pulseless, with the thigh enormously swollen. He at once Esmarched him, opened the thigh and scooped out the clots. Both artery and vein were involved, and both were ligated. Recovery was good. Another case was that of a young man who received a penetrating wound just below the left clavicle. The opening was closed with sticking plaster and the patient allowed to go about. Several days afterward there came the sudden sensation of something giving way, and the patient fainted from internal loss of blood. On examining the case shortly afterward there was found total absence of pulse in the left arm with absolute dullness on percussion over the left lung. The heart was pushed over under the right nipple. The patient died in eight hours. *Post-mortem* examination showed an opening into the left subclavian artery, a traumatic aneurism had developed, and afterward that had ruptured into the pleura. In all cases great caution should be urged for some time after the injury has been received, and a guarded prognosis given. Where secondary hemorrhage occurs, the only recourse is a radical operation, and by this means most cases are cured.

Dr. Yandell mentioned a case of axillary aneurism occurring six months after an injury. The subclavian was ligated. Four days later slight hemorrhage supervened. He had the patient constantly watched, but, despite every precaution, a sudden gush of blood came and death was almost instantaneous. *Post-mortem* examination showed that a spiculum of bone had ulcerated through the walls of the vessel above the ligature. Another man was stabbed in the arm in a Christmas frolic. He lost but little blood. Later the arm began to swell; he laid this to the bandage — saw his mistake, cut down and found that the point of the knife had just entered the vessel. He tied here, as he does in all similar cases, to save life. The prognosis should always be guarded at the time of such injuries, and should not be influenced by the absence of abundant hemorrhage.

E. R. PALMER, M. D.,
Secretary.

LATELY, while traveling in Italy, Sir Joseph Lister was refused at a drug store some bichloride of mercury with which he desired to preserve some plants because the clerk did not know him. Yet the walls of the same store were adorned with advertisements of Lister's antiseptic dressings, etc.—*American Lancet.*

Translations.

ETIOLOGY OF TETANUS.—At the session of the Academy of Sciences of October 3d, M. Verneuil, in giving results of his studies in the etiology of tetanus, declared that he was convinced of the non-existence of spontaneous tetanus. In fact a trauma quasi microscopic (the prick of a sewing-needle, hypodermic syringe, or a thorn, a scratch or excoriation, measuring only a few millimeters) is easily followed by a true traumatic tetanus. Various pathological lesions (burns, frost-bites, simple or specific ulcers), either primary, consecutive to an inflammatory or ulcerous abrasion of the skin, with the concurrence of a determining cause, may become the starting point of a tetanus, which one may call pathological if he will, but not spontaneous. Wounds and lesions may generate tetanus even after complete cicatrization more or less ancient, that is to say, they may date back many years, and, being far from severe, impose a long retrospective inquiry which is rarely enough made. M. Verneuil is of the opinion that tetanus is related to virulent or infectious microbian diseases. He believes there is always a specific cause, a virus coming from without and penetrating the organism at a given moment, but never originating there *de novo* or spontaneously.—*Le Progrès Medical.*

THE FORM OF THE CRANIUM AND INSANITY. M. Rodriguez de la Torre, in a recent work, has considered the variation of the cranium in regard to volume, form, etc., with relation to different forms of insanity. Without discussing the value of his numerous and patient researches, we will simply say that the conclusions to which he comes appear to us not demonstrated, and perhaps exaggerated. "In general terms," says the author, "one may assert that in a majority of cases a marked asymmetry of the cranium, and above all in idiopathic and hereditary forms of insanity, eliminating acquired and accidental forms (alcoholism and syphilis), the mass of the brain will be exaggerated in the case of maniacs and diminished in the case of lypo maniacs. Further, in all forms there will be a marked predominance of the latero-posterior regions even when the volume of the cranium is below that of the average. In the case of the idiot, and of the cretin the volume of the cranium does not possess a material significance, since it may vary from hydrocephaly to microcephaly. Nevertheless, the exaggerated development of the occipital protuberance even in these cases can hardly fail of observation. The crania of dements, especially of senile dements, offers nothing peculiar." The author insists on an exaggerated development of the frontal parts in general paralysis. In epilepsy cranial asymmetry is oftenest met with having one point greatly developed. In hysteria cranial asymmetry is also met with. But this amounts to nothing in particular, since the most varied forms of psychopathies are also found among them.—*Ibid.*

Investigations on the Pharmaceutical and Therapeutical Properties of Hyoscin.*—(By A. Sort: *St. Petersburg Med. Wochenschrift.*) Under the guidance of Kobert, the author tested the pharmaceutical and therapeutical reactions of hyoscin and obtained the following results:

Hyoscin paralyzes the inhibitory apparatus of the heart and annuls the irritability of the vagus. It dilates the blood-vessels without influencing the vaso-motor center. It arrests the secretion of the saliva and lessens peristaltic motion where it is exaggerated by nerve irritation. It dilates the pupils. On the healthy man hyoscin acts as a narcotic. In great mental excitement and insanity it always induces sleep and quiet. A single dose of $\frac{1}{133}$ to $\frac{1}{66}$ grain by the mouth, or, better, injected subcutaneously in watery solution, is recommended.

A Case of Spasm of the Glottis caused by Aneurism of the Aorta.*—(By Bresgen: *Berlin Klin. Wochenschrift.*) The patient was thirty-six years old. For six weeks he had suffered from dyspnea on any violent exercise. Examination with the mirror during the attack showed the vocal cords closely approximated in the middle line, so that only a narrow slit remained. When the respiration was free, examination showed the larynx to be normal. The patient died suddenly, blood gushing in a great stream from his throat. The *post-mortem*, not made by an expert, revealed, in the dilated atheromatous arch of the aorta, an aneurism the size of a small apple, which had broken into the trachea by a round opening, about one centimeter large, situated nearly over the left bronchus in the anterior tracheal wall. The perforation was in an atheromatous part of the wall of the aorta, about one centimeter long and one half centimeter broad. Unfortunately nothing was ascertained as to the relation of the aneurism to the vagus and recurrent nerves.

Simplification of Treatment of Resection of the Knee.*—(By Ollier, of Lyons.) The author attempts, by preservation of the lateral ligaments, to allow the iodoform bandage to remain as long as possible (in one case fifty-four days) until cicatrization. He inserts short drainage-tubes from behind and laterally, only just as many as are necessary to secure the discharge of the pus, and especially discharge from the space lying under the tendon of the quadriceps extensor. He uses a large quantity of iodoform (twelve to fifteen drams), but applies but little to the bleeding surface, the greater part lying between the layers of bandage. Thus there is no danger of systemic poisoning. The leg is laid on a posterior splint. Elevation of temperature in this method is no reason for a change of dressing; this is not indicated until there is pain in the knee, with dry tongue and complete loss of appetite. Ollier treated twelve cases successfully in this manner. In only one was it necessary to remove the bandage on the tenth day.

Sulphurs in Laryngeal Tuberculosis.—(Dr. Z. Charazac, Toulouse, France.) At the International Congress of Medical Sciences, held at Copenhagen, Dr. Uoure has already protested against the use of sulphurous waters and sulphurs in general in tuberculosis laryngitis. Dr. Charazac again brings forward the question, and infers, from the numerous acknowledged facts of the above therapeutic agents and from numerous facts rigorously observed, that such agents should be proscribed in the treatment of tuberculosis of the vocal organs.

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*Translated by S. G. Dabney, M. D.

*Translated by S. G. Dabney, M. D.

It is generally admitted that the sulphurs have a congestive and exciting action, and that this action manifests itself especially upon the respiratory tract, particularly upon the larynx. Bearing in mind this congestive effect, should the sulphurs be prescribed in tuberculosis of the larynx? No! says the author, for it is always dangerous in cases of this kind since it tends to produce a state of congestion and of acute inflammation which often brings about a fresh spreading of tubercles.

On examination of a patient suffering from laryngeal tuberculosis one is at first struck with the paleness of the mucous membrane. The velum and the posterior wall of the pharynx are often of a dull white. The same symptom occurs on the mucous membrane of the larynx, and the characteristic paleness forms a striking contrast to the ulcerated parts, which are more or less congested. This anemia, under the use of sulphurous waters, gives way to a marked congestion of the organ, which congestion can easily be seen with the laryngoscope (the author has reported several observations), and if the use of these medicinal agents is continued a new eruption of tubercles can often be witnessed, and the torpid laryngeal tuberculosis transforms itself into an acute miliary tuberculosis.

Hering, of Varsova, Baginski, Barstoun, and a goodly number of authors and doctors from mineral springs, are opposed to the use of these waters in tuberculosis laryngitis; but of all the authors and authorities on the subject the highest is Pidoun. This author in his celebrated book entitled *Etudes génerals et pratiques sur la phthisie*, says exactly, "*Sulphurous waters are always used in vain, or are hurtful in the true laryngeal phthisis.*"—*Revue Med. dê Toulouse.*

THE publishers of the Archives of Pediatrics announce that, in the issue of the January number, 1888, will begin a series of articles on the Therapeutics of Infancy and Childhood, by A. Jacobi, M. D.

Reviews and Bibliography.

Treatise on Human Physiology, for the use of Students and Practitioners of Medicine. By HENRY B. CHAPMAN, M. D., Professor of the Institutes of Medicine and Medical Jurisprudence, Jefferson Medical College, Philadelphia. Pages, xv–943. Philadelphia: Lea Brothers & Co. 1887.

Soon after the world of science was startled by the magnificent contributions of Darwin, a work appeared from the pen of a Philadelphia physician giving the fairest and fullest exposition of the existing status of the subject at that time to be met with. The author of that work was Dr. Henry C. Chapman. Many have speculated since its appearance as to the reason why the author remained so long silent. Again that silence is broken, and the result is as good a work on physiology for the American student as can be found in any language. This is no book written for the purpose of self-advertisement. It is the production of an author delighted with his work, and one able to inspire the student with enthusiasm akin to his own. While not so exhaustive as some of the advanced German works, it has all that any one but a teacher could wish to learn of what is known in the department of physiology, and in particular of what is known that relates to the practice of medicine.

It is easy to predict for Chapman's Physiology the popular favor among students so long held by Dalton's classic work, to which, indeed, it bears much resemblance.

Twenty-third Report of the Trustees of the City Hospital, Boston. 1886.

The Physician's perfect Call-Book and Record. By Dr. G. Archie Stockwell.

Surgical Relations of the Ileo-cecal Regions. By J. McF. Gaston, M. D., Atlanta, Georgia. Reprint.

Contusion of the Abdomen and Rupture of Intestine. By B. Farquhar Curtis, M. D. Reprint.

Operative Surgery on the Cadaver. By Jasper Jewet, Germany, A. M., M. D., F. R. C. S. Pages, 150. Price, $2.00. New York: D Appleton & Co. 1887.

A Letter to the Rt. Honorable Lord Aberdare, Chairman of the Hospital for Sick Children. By Charles West, M. D. London. 1887.

Druitt's Surgeon's Vade-Mecum: A Manual of Modern Surgery. Edited by Stanley Boyd, M. B., B. S., Lond., F. R. C. S., Eng. Twelfth edition, with three hundred and seventy-three wood engravings. Pages, xvi-985. Price, $6.00. Philadelphia: Lea Brothers & Co. 1887.

The Student's Guide to Diseases of the Eye. By Edward Nettleship, F. R. C. S. Third American from the fourth English edition, with a chapter on Examination for Color Perception by William Thompson, M. D. Pages, xx-475. Price, $2.50. Philadelphia: Lea Brothers & Co. 1887.

A Complete Hand-book of Treatment, arranged as an Alphabetical Index of Diseases, to facilitate reference, and containing nearly one thousand formulæ. By William Aitken, M. D., Professor of Pathology in the Army Medical School, Examiner in Medicine for the Military Medical Service of the Queen. Edited by A. D. Rockwell, A. M., M. D. New York: E. B. Treat. 1887.

Abstracts and Selections.

CIRCULAR SUTURE OF THE INTESTINE.—Dr. William S. Halsted, of New York, contributes to the October number of the American Journal of the Medical Sciences an elaborate experimental study of this subject, which may be summarized as follows:

It is impossible to suture the serosa alone, as advised by authors.

It is impossible to suture unfailingly the serosa and muscularis alone, unless one is familiar with the resistance offered to the point of the needle by the coats of the intestine. Furthermore, stitches which include nothing but these two coats tear out easily, and are therefore not to be trusted.

Each stitch should include a bit of the submucosa. A thread of this coat is much stronger than a shred of the entire thickness of the serosa and muscularis. It is not difficult to familiarize one's self with the resistance furnished by the submucosa, and it is quite as easy to include a bit of this coat in each stitch as it is to suture the serosa and the muscularis alone.

It is unnecessary, in performing circular suture of the intestine, to make more than one complete row of stitches, if they be of the plain-quilt variety. Unless all of the stitches of the row are applied before a single one is tied, it is impossible to preserve a straight line in the application of them.

It facilitates the operation very much to make five or six presection sutures. The eversion of the mucous membrane, which otherwise takes place and makes the application of first-row, postsection stitches troublesome, is thus prevented. The first presection stitches should be introduced at the mesenteric border of the intestine, and at a place as free from fat as possible.

The plain-quilt stitches are to be preferred to the ordinary Lembert's stitches because (1) one row of them (the former) is sufficient for the circular suture; (2) the knots of the first row of Lembert's stitches prevent the most accurate apposition of the opposed peritoneal surfaces; (3) the plain-quilt stitches constrict the tissues less than the Lembert's stitches; and (4) the former tear out less easily than the latter. Madelung's cartilage plates, which he employs partly to prevent the tearing out of the stitches, are unnecessary when a bit of the submucosa is taken up with each stitch.

The vessels of the excised intestine should be ligated by circumvection. It is not necessary to exsect a triangular piece of mesentery, and it is unadvisable to sew together the edges of the rent in the mesentery, for in so doing one might include the small vessels which contribute to the blood-supply of the sutured parts.

Solutions of corrosive sublimate stronger than 1–20,000 should not be used for irrigation. It would be better, perhaps, to employ weaker solutions (1–30,000 or 1–40,000). The irrigation should be attended to most diligently when the stitches are being tied.

NEURALGIC HEADACHES WITH APPARITIONS OF UNUSUAL CHARACTER.—Dr. S. Weir Mitchell reports in the October number of the American Journal of the Medical Sciences five peculiar cases of migraine which must be excessively rare, since with the largest opportunities he has seen but four examples. They are so interesting that they possess a value which sets them quite above the position of mere rarities. In the cases he describes the ordinary subjective images of zigzag lines or rotating wheels were replaced by more definite shapes, so as sometimes to induce the belief for a time, on the part of the patient, that a ghost had been seen. In two cases the vision came as the only visual phenomenon of severe headaches. Now and then the apparitions were various, at times followed the common zigzags, and at others occurred in the intervals between a succession of exasperating headaches.

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. IV. SATURDAY, NOVEMBER 12, 1887. No. 10.

D. W. YANDELL, M. D.,
H. A. COTTELL, M. D., - - - Editors.
D. T. SMITH, M. D.,

A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year, postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

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THE RADICAL CURE OF HERNIA.

Few questions in surgery have been the subject of more attentive study and more careful skill than operations for the radical cure of hernia. That surgeons without number and of the highest degree of skill and ingenuity have failed up to the present time to hit upon any safe and successful method, is of itself a fact of sufficient weight to prove the very great difficulty of a satisfactory accomplishment of the desired result.

The difficulties are manifold. First, accompanying nearly all degrees of displacement of organs, there is a certain amount of disturbance set up resulting in a process difficult to define as between chronic inflammation and hypertrophy. This is witnessed in prolapsus of the bowel in various displacements of the womb, etc. Whatever may be the nature of this change, the structures so affected do not afford the best material for union after surgical interference.

Again, all cicatricial tissue under pressure, not having the resiliency of normal tissue, tends to disintegration. This property affects the history of all operations involving the abdominal wall, even in the most healthy condition. Still, in many cases after laparotomies the cohesion of the wounded surfaces remains perfect during life under every reasonable strain. In the lower animals this is quite notable. In the case of female pigs, for instance, millions of which are spayed every season, in the hands of careful operators very few have ventral hernias, notwithstanding the tension to which the cicatrices are so frequently put.

What then are the prime difficulties in the way of effectively curing hernias in the human subject? They are principally two—the one vital and the other physical. The vital difficulty is the weakness of the pillars of the abdominal ring in subjects of hernia. Such people have hernias because they have a bad groin and deficiency of tone. Operation can not give the vigor and development congenitally deficient. So after operations we have the same weak-groined individual as before exposed to a recurrence of the rupture, with the addition of the other drawbacks already referred to.

But there is another still greater, the physical drawback. In laparotomies under normal conditions the cut tissues are brought together with no more than the customary strain. In closing up a dilated ring, or one abnormally large, all this is changed, and the puckered parts about the cord after operation have to bear nearly the whole tension ordinarily falling on the abdominal wall. If a round hole were cut in a garment the housewife would not think of sewing the edges together and putting the whole strain on the parts entering into the inclosure of the rent, but she sews a patch over the hole and distributes the strain as before. So in the operation for hernia. The edges of the aperture are stitched together and the strain otherwise borne by the entire abdominal wall is thrown upon the margins of the ring. When this strain is considerable there can be but one result. The ring must again give way. If the abdominal ring were sufficiently removed from the pelvis, possibly a strip might be taken from the tissues in such a way as to diffuse the strain after operation. Under the conditions existing, it is not easy to see how an effectual method can ever be attained for the radical cure of hernia until grafting has been so far perfected as to become a practicable procedure.

Dr. W. G. Ouchterlony, son of Prof. John A. Ouchterlony, died on the morning of the 10th instant at his home in Louisville. Dr. Ouchterlony was a young man of superior mind and, for his years, of fine attainments. His genial spirit and manly bearing made him many friends, while his zeal in the pursuit of knowledge gave promise of a life of more than common usefulness in his chosen calling.

The bereaved father, in the loss of his only son and child, has the sympathy of the entire community and of the profession at large.

Notes and Queries.

Changes in the City Hospital.—The trained nurses under the charge of Miss Moss will shortly take charge of the obstetric wards in the City Hospital, and Mrs. Erringer, who has for many years performed that duty, will retire.

While we can not doubt that it is for the best that the obstetric ward should be utilized for purposes of education in the manner proposed, no one who has been in attendance in this department of the hospital can fail to regret the necessity of retiring Mrs. Erringer. She has proven a most capable, motherly helper to her charge, and, among the unfortunate class who make up the most of the inmates of the obstetric ward, no woman in the city has exerted so much influence for good.

Dr. Thomas F. Wood.—We are pleased to learn that Dr. Thomas F. Wood, the able editor of the North Carolina Medical Journal, has been able to resume his editorial labors and also his work in the North Carolina Board of Health. Dr. Wood has been for a year and a half confined in absolute recumbency on account of abdominal aneurism. May he yet be spared for many years of comfort and usefulness.

Cablegram from London, dated October 25, 1887, states that W. R. Warner & Co., of Philadelphia, have received the highest award from the American Exhibition in London for superiority of their sugar-coated pills and effervescing salts.

New Journal.—Annals of Gynecology is the title of the latest candidate for professional favor. It is edited by E. W. Cushing, M. D., of Boston, and is a monthly review of gynecology, obstetrics, and abdominal surgery. It is an able and scholarly journal, and promises to exert a most valuable influence in the department to which it is devoted.

Our Tardy Number.—We regret that this issue of the American Practitioner and News must go to our readers a week late, and cut by one half of its reading matter. The reason is to be found in the present general strike among the printers. The next issue will be on time and so enlarged as to make good the shortage of this number.

SPECIAL NOTICES.

The Western Pennsylvania Medical College, at Pittsburgh, began its Second Annual Regular Course on Tuesday, September 27th, with a large class.

The introductory address was delivered by the Secretary of the Faculty, Prof. W. J. Asdale.

Dr. Asdale congratulated the class that they entered as students of medicine at an auspicious time—that the Science of Medicine was rapidly developing—that great achievements were promised in the near future—that a new pathology was being created on an endurable basis, and a new therapeusis is to be formulated.

This College requires an Entrance Examination, and provides a three years' Graded Course.

Its success has been unexampled.

Extract of report from the celebrated physician, Erasmus Wilson: "Several cases of incipient consumption have come under my observation that have been cured by a timely use of 'Liebig's Liquid Extract of Beef Tonic' (Colden's)."

"ERASMUS WILSON, M. D., F. R. S.,
"19 Henrictta St., Cavendish Sq., London W., June 3, 1872."

Extract of report made by Arthur Hill Hassell for the Analytical Association, Russell Square, England: "Health and the vigor of youth is conveyed to the debilitated by the use of 'Colden's Liquid Beef Tonic.'"

ARTHUR HILL HASKELL, M. D., F. R. S.,
Pres't of the Analytical Assoc., June 7, 1872.

[From Prof. Jackson, of the Laval University, Quebec.]

I have had occasion to use, in my practice as physician, "Colden's Liquid Beef Tonic," and can fully recommend it as extremely useful in cases of debility and general depression. In the sick-room, as an article of food, combining at the same time tonic properties, it is highly useful. In all cases requiring strengthening nourishment, such as aged persons of weak digestion, it may be given with advantage. [Signed]

A. JACKSON, M. D.
Quebec, 20th May, 1873.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. IV. [NEW SERIES.] LOUISVILLE, KY., NOVEMBER 26, 1887. NO. 11.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

POST-PARTUM HEMORRHAGE.

BY E. J. KEMPF, M. D.

CASE 1. Mrs. H. B., of F., was confined in June, 1881, and was attended by Dr. J. A. S. The woman was delivered of twins, and the labor was in every way normal; so was I afterward informed by the attending physician. This was the woman's seventh labor. She was of nervous temperament, inclined to hysteria, and at one time was under my father's treatment for hysterical insanity, from which she had recovered.

Several hours after labor I was called by the husband to come in haste to the woman's aid, as she was bleeding to a dangerous extent. Dr. S. was absent, having left the patient, thinking every thing was all right.

I found the woman lying on her back, her limbs stretched out, afraid to move because that increased the bleeding, perfectly conscious, not particularly frightened, although quite anxious about the bleeding. Pulse was 110, small and feeble, and the patient was apparently exhausted from the previous labor and the bleeding. On examination I discovered a large mass of clotted blood between her thighs, her vagina filled with clotted blood, and her uterus uncontracted.

Unfortunately for the woman, an unexperienced hand had been summoned to save her in this, her terrible danger. It was the first time I had ever been called to the bedside of a woman in labor. Though a graduate I had never seen a case of obstetrics. That I was frightened I need not say; it were a wonder had it been otherwise. But I was not going to let the woman die without making an effort to stop the flow of blood. So I grasped the uterus and commenced to work it, as I had been taught by Prof. Crowe—"be gentle but firm." The bleeding stopped, and as I recalled my presence of mind, I ordered a dose of ergot to be given the woman. After this cold was applied to the abdomen, supplemented by gentle kneading. The bleeding did not return, and the uterus remained well contracted. I stayed at the patient's side for an hour, when the attending physician came back, and I gave up the case to him. The woman made a good recovery without further trouble.

Remarks: This was a case of true *post-partum* hemorrhage due to relaxation of the uterus after contraction, which may have been caused by uterine exhaustion, and therefore the treatment was quite appropriate.

CASE 2. In November, 1882, I was summoned to come as quickly as possible to the aid of a woman two miles in the country. Her husband, who ran to the office, crossing fields and fences, said that a midwife was attending his wife in labor, that the child was born, that the after-birth had come all right, but that his wife was bleeding to death.

In twenty minutes afterward I was at the woman's bedside and found her in the following condition: She was lying on a straw mattress, which was soaked with blood, and blood covered the floor, while a large mass of clotted blood lay in between the thighs of the woman. The midwife stood helplessly by. The woman complained of feeling faint and thirsty, she was pale, her lips were blue, and her pulse was small and feeble. I realized at a glance that every second was indeed precious to this woman, who was bleeding to death slowly but surely.

Without washing my hands or taking any other antiseptic precaution (which at present I would hardly dare to do), I formed my hand into a cone and pushed it into the vagina through the clot of blood up toward the uterus. Just then the midwife explained that after the child was born she had made moderate traction on the cord, that the cord had pulled out with a piece of the placenta, which she thought "was caused by the placenta's being rotten" (her words).

I found no os. The womb was open and uncontracted, at its mouth lay what I took to be a placenta without any cord. As gently as I could I removed this by making my fingers loosen it from the uterine wall. Then I grasped the placenta into the palm of my hand and kept it in the uterus, while I worked the uterus with my other hand externally. In a few moments the womb commenced to contract and expelled my hand, with it the placenta and some clots of blood.

This woman made a good recovery, although her convalescence was somewhat protracted.

Remarks: This was a case of *post-partum* hemorrhage during the third stage of labor, and was of a different kind from Case 1. Such an accident should not occur in the practice of a careful physician or an intelligent midwife. *Post-partum* hemorrhage might occur to any one during the third stage of labor, but should never happen in the manner described. Removal of the placenta or part of the placenta by Credé's method, or manually, is the treatment.

Case 3. On November 9, 1884, I was called in consultation to Mrs. ——, who had just been delivered of a fine boy. The midwife told me that the labor had not been a severe one, and that the after-birth came away without much trouble. I questioned her whether she had made any traction on the cord, to which she acknowledged that she had.

The patient was very restless. She would toss about the bed, and kick off the bedclothes and expose herself. She passed the feces and urine into the bed, and in rolling around in it covered herself with the dirt and the blood. Altogether she was a disgusting and pitiable sight. She seemed to be delirious, for she answered no question put to her, nor did she mind the calling of her name, neither did she take notice of any thing occurring about the room. She would heave a sigh and then call for water. She seemed strong, so we could hardly hold her in bed, and yet her pale face and blue lips told me plainly that *there was hemorrhage.*

With the aid of the midwife and the husband I put clean and dry clothes under the patient, and washed off the filth that covered her. In the meanwhile I made constant efforts to knead the uterus, which was as limp as a rag. A large amount of clotted blood was now forced from the uterus as if by Credé's method, and hope revived in my somewhat puzzled brain; for, to tell the truth, I hardly knew what I had to contend with. And it is surely not pleasant to fight an enemy when you do not recognize him.

I gave the woman a dose of fluid extract of ergot, which she vomited up immediately. I then gave her a hypodermic injection of the same drug, and a large dose of quinine by mouth which remained on the stomach.

On vaginal examination I found the os well contracted and apparently all right. For an hour I kneaded the uterus constantly. After this time, there being no more bleeding, and the woman resting a little easier, I returned home, leaving directions to keep the woman quiet and to give her repeated doses of brandy and ammonia.

In an hour and a half I returned to the house and found the woman somewhat better. She was rational, but very weak, her pulse was small, feeble, and rapid, the temperature was 90° F. She still complained of thirst, she was not restless. The uterus seemed well contracted, but larger than ordinary. I gave her another large dose of quinine.

In a half hour I was recalled to the patient's bedside and found her in about the same condition as at my first visit. There was no external bleeding, but to all appearances *there was hemorrhage.* Grasping the uterus, which was flabby and uncontracted, I made a pressure and out popped a large lump of clotted blood about the size of a placenta. Then there was a relaxation of the uterus followed by contraction. The os was found well closed, so that I could not enter.

Dr. R. T. Venneman now came to my aid, and, while he grasped the uterus externally, I proceeded to carry a sponge soaked with perchloride of iron into the cavity of the uterus, in which I succeeded.

The uterus was now well contracted and remained so. As it expelled my hand and the sponge, all manipulations were discontinued. But the woman by this time was in a state of collapse. The pulse was a mere quiver, for there was no blood in her arteries. Her breathing was eight to the minute. Realizing that the patient was fast sinking, Dr. Venneman made preparations to perform transfusion, while I attended to the patient, giving her whisky and aromatic spirits of ammonia frequently by the mouth and once hypodermically. Before transfusion could be performed the woman died from exhaustion.

Remarks: In relating these cases the writer has not tried to magnify his skill in combating cases of *post-partum* hemorrhage, but has given a plain and truthful account of these cases as they actually occurred.

Some one may censure me on account of the death of Case 3, especially as Fordyce Barker holds that no woman should die from *post-partum* hemorrhage. Yet if the reader remembers the clinical history of this case he will, no doubt, agree that it was really a desperate one. It should be classified under the head of secondary *post-partum* hemorrhage, and was caused by an irregular contraction of the uterus, an hour-glass contraction. And it is remarkable that there were two distinct attacks of *post-partum* hemorrhage in this case. The second attack was undoubtedly due to a slow, concealed hemorrhage which gradually distended the uterus. In fact this was the state of things, for on grasping the uterus and making compression, as if by Credé's method, at the second attack, a large mass of clotted blood was forced from the uterus and expelled from the vagina. Should the reader ever have the great misfortune to meet with such a case as the writer has described, I would advise him to endeavor in every way possible to gain entrance into the cavity of the uterus, for if he succeeds in this he will be better able to save his patient.

I have presented three cases of *post-partum* hemorrhage, each from a different cause, and, as it happens, the article covers the *causes* of *post partum* hemorrhage. Of the three types, one due to a retained placenta or parts of the placenta, the second to uterine exhaustion, the third to irregular contraction of the uterus, each calls for different treatment, it is true, but the main object to keep in view is the securing of *permanent contraction of the uterus.*

I have never met with a case of *post partum* hemorrhage in my own obstetrical practice.

JASPER, IND.

NEW APPLICATIONS OF THE INDUCED OR FARADIC CURRENT TO GYNECOLOGY.*

BY DR. G. APOSTOLI.†

The contributions which the induced or faradic current has furnished to gynecology are altogether of French origin, and I have no fear of being contradicted when I say that it was my friend, Dr. A. Tripier, who first used it in the treatment of diseases of women. The discovery was not of yesterday, it dates back more than twenty-five years, during which time it has slowly ripened. I hope that in the fresh activity which is now manifest in this new branch of therapeutics its full merit will soon be generally known.

Tripier was the first to demonstrate that we could employ the contractile properties of the induced current, not only in obstetrics, which I shall not now discuss, but especially in gynecology. According to him all, or nearly all, inflammations of the uterus are due to initial inertia of the muscular fiber. From this inertia, which is most often *post-puerperal*, results a disorder of the circulation, a congestion or stasis of the blood, and consequently a disorder in the nutrition of the whole organ.

Re-establish the equilibrium in the circulation, hasten artificially for a time this perverted circulation, and you will have rendered a double service, curative and preventive at the same time. Such is the part played by faradization, as it has been defined by A. Tripier, which in many uterine affections is destined to render signal service.

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* Read in the Gynecological Section, International Medical Congress, at Washington.

† Translated by Lapthorn Smith, M.D., M.R.C.S. Eng., of Montreal, Canada.

A. Tripier, in his writings, at his clinic, and in his teachings, has made uterine engorgement the central pivot of gynecology, for which he advises a precise stimulant, the induced or faradic current.

In a recent memoir[*] I have endeavored to show the preponderating influence which sepsis exerts in gynecology, an influence which he had not recognized. I have shown that lesions of the mucous membrane are first in order, and that these extend to the parenchyma by continuity. I have also shown that if the faradic current was sovereign in the recent and purely mechanical forms of engorgement, as in the arrest of simple involution, it was on the other hand useless in the chronic forms and in the lesions limited to the mucous membrane, or in other words in endometritis; this is easily understood, because on the one hand, in chronic engorgements, the muscular fiber, strangled by tissue elements of new formation, disappears, more or less, in most cases, and consequently the induced current which acts directly on muscular fiber finds nothing to work upon.

On the other hand, in the mucous forms which are so common, it is evident that the induced current will have still less to exercise its action on. I have at the same time shown the benefits that may be obtained from the methodical application of the *continuous current* in these cases.

With a clear understanding of the field of action proper to the faradic current, I have directed all my efforts to the widening of the circle of its applicability beyond the limits which Tripier had laid down for it. In three points I have succeeded. The first and second date back several years, while the latter is quite recent.

I have modified the instrumentation[†] to which Tripier has given his name. He had devised the method of *unipolar excitation* of the uterus, called *utero-super-pubien*, and in which the current was always closed on the abdomen.

I have substituted for it the *bipolar method* by means of a sound which places the two poles side by side, and which permits the electric current to be closed almost directly on the uterus, while at the same time it differs sufficiently to affect the entire uterine muscles.

This method, by concentrating in the uterus through a single sound held by the physician the whole electrical action, presents the following advantages:

(*a*) It is less painful, in that the action of the current is removed from the skin. The skin receives the shock in Tripier's method when the current is closed over the pubis.

(*b*) It is easier of application, because it enables the physician to dispense with an assistant.

(*c*) It permits of a more intense application and an increase of the current strength, since it is less painful.

(*d*) It assures a greater efficacy, because the therapeutic action, other things being equal, is in proportion to the intensity of the electric outflow.

The practice of uterine faradization which I recommend is uniform—it should be bipolar, and pregnancy is the only contra-indication to its employment; but in this case, as in several others which I shall point out, vaginal bipolar faradization will be a substitute for uterine faradization, and, although less efficacious, it will still be very useful.

Beyond the question of instrumentation, the second contribution which I claim is the appropriate and methodical application to gynecology of the faradic current of tension. The explanation of the current of tension involves some points in physics which I can only give you in an abridged form.

All modern faradic apparatus are not complete, except on condition that they have two coils independent of each other which, according to the length and thickness of their respective wires, materially modify the qualities and methods of application of the induced current. The coil with the short thick wire gives a current which is known as the current of quantity, because the generating wire is less resisting and allows the current to flow through it in larger bulk. This current is *par excellence* the exciting current of muscular contractility, and it is the only one which Tripier has employed to counteract muscular inertia and relieve uterine engorgement.

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[*] *Sur un noveau traitement de la metrite chronique et en particulier de l'endometrite par la galvano-caustique clinique intra-uterine, par le Dr. G. Apostoli, Paris, Oct. Doin, Editeur*, 1887.

[†] *Sur la faradisation uterine double ou bipolaire, par Dr. G. Apostoli, in l' Union Médicale du 28 October*, 1884, *et l' American Journal of Obstetrics, September*, 1886.

The other coil, with fine long wire, is called the coil of tension, and gives a current whose expansive force (to use a materialistic phrase) is much more considerable. The last current excites less acutely muscular contractility and becomes, on the contrary, the direct excitor of sensibility. It is therefore applied with success in all cases in which pain is predominant, antagonizing intense nervous vibration. Its counter-irritant action on the skin is of such daily use that I do not need to remind you of it. Its uses need not be limited to gynecology. The element of pain in gynecology plays every where a preponderating influence, for it is that which compels most of our patients to consult us. Now, if we consider the element of pain in gynecology, we find it to be either inflammatory or nervous.

On the one hand it is uterine inflammation, properly speaking, and especially peri-uterine inflammation, which constitutes a factor in painful diseases against which gynecologists often have to struggle in vain.

On the other hand the pain is *sine materia*, absolutely nervous, and on account of its usual seat bears the name of ovarian pain. I do not hesitate to say that all the time-honored practices of therapeutics are well-nigh impotent against such pain. Who can say that he has cured ovarian pain surely and permanently by the resources of medicine only, and what have we not done on the other hand, and vainly, to relieve the painful element in peri-uterine inflammation?

The problem is vast and embarrasses one department of gynecology; it is grave, moreover, and should command our attention, for the number of women who have been castrated for simple ovarian pain, which is curable by a simple electrical current, is legion.

I do not fear to affirm that this ovarian pain, which we meet with in hysterical patients, whose number is large, is in nineteen cases out of twenty curable; while the pain due to inflammation may often, though I do not say always, *be relieved* by the same means, to wit, faradization by the method above described.

I made this the subject of a memoir in 1883, and in 1884, at the Congress in Copenhagen, I read a second memoir on the treatment of perimetritis.

The faradic current of tension applied under the operative conditions laid down is the best sedative that we can employ in gynecology, if we conform to the following rules:

(*a*) Of the two possible applications, either uterine bipolar or vaginal bipolar, the intra-uterine is always the most active and efficacious and should always have the preference, while on the other hand the vaginal will always be used when you can not use the intra uterine excitor, as in case of pregnancy—or in the case of a virgin—or in cases of too intense peri-uterine inflammation. The chief point in the treatment consists in the *length* of the sittings, which should only cease (no matter how long, even *five to twenty minutes* on an average) when the pain has been *calmed* or *removed*, as can be ascertained by the testimony of the patient and direct exploration. You *must never interrupt a sitting, especially the first one, until you have obtained a more or less marked result.* You must therefore persevere until the effect is produced, and this time will vary, not only with different women but even in the same woman, according to the period of treatment.

(*b*) The first sitting will as a rule occupy more time than the second and the third, which will only have to keep up the actions which the first began.

I should, however, accentuate this important fact, that while perimetritis can only be *relieved* by this means, ovarian pain can and will generally be *suppressed as far as spontaneous pain alone is concerned.*

(*c*) These sittings should be as near to each other as possible, *every day, and even twice a day* if possible, in order that their effects lead into each other, so to speak, and not permit the amelioration set up by the first sitting to die away before a second is tried.

(*d*) It is impossible to formulate a precise rule as to the number of sittings which may be necessary. We find ourselves, in fact, on one side in the presence of various and numerous affections either inflammatory or nervous, and on the other hand the treatment which I propose is above all only the treatment of a symptom.

Every case, every woman, will therefore require a treatment more or less long, which the tact of the physician will proportion to the object he has in view. In simple ovarialgia two to five sittings will generally suffice to assure to the patient a freedom from pain which has lasted several months or more, and even in case of relapse the same treatment will always have the same success. In inflammations, on the contrary, it is impossible to say how many settings will be required, owing to the lesser efficacy of the medication on the one hand, and on the other hand the variety of the cases treated and the slowness of resolution.

(*e*) The technical details which concern the dosage or intensity to be employed (which is regulated by pushing in or out the coil or muffler) will vary considerably within very wide limits, which must be understood.

1. If we have to deal with *perimetritis*, the current must be always well tolerated, it must be applied very slowly and progressively and we must limit ourselves in the acute stages to small, very small doses, which may be increased according to the toleration of the patient and the improvement in the inflammation. You must avoid causing any appreciable pain to the patient, first because it is useless, and secondly because a too strong application might aggravate the symptoms.

You can not take too many precautions, especially at the beginning of the sitting; you must always begin with zero, taking care always to have the coil or muffler pushed in, and then to draw it out little by little, always keeping your eye upon the expression of the patient, which is the best indication of her sensations. The more acute the inflammatory condition about the uterus, the more slow and gentle we should be in our manipulation.

2. If, on the contrary, it is a question of ovarian pain, then all means are good, provided we arrive at the end in view, and the duty of the physician is to always reach sure results.

You must know that in these cases there is no danger whatever, and as long as the periuterine tissue is healthy the uterus can with safety tolerate any thing.

Now, what must we apply to relieve the pain? Most often the maximum dose will be required after the dose has been gradually increased; sometimes a medium dose will be sufficient. In the case of perimetritis you must on no account make the patient suffer; in the case of ovarian pain, on the contrary, it is sometimes advisable to act brusquely, and to give a liberal dose of the current of tension in case a feeble dose fails of effect.

The electrical dosage will be as variable as that proteus which is called *hysteria*, and will require a series of delicate maneuvers which practice alone can teach us.

Although I have treated hundreds of cases of ovarian pains, still I can not give you an exact rule which will apply to every case. It suffices for me to say that you have in your hands an instrument which offers a regular gamut of intensity, the application of which is regulated by the feelings of the patient herself.

If each patient requires a special quantity, still there are some general considerations which are destined to enlighten you. Most often hysterical patients, and it is one of their special attributes, support very well the faradic current of tension with the full strength of the coil. They bear it so well, in fact, that often after a few moments' application they feel nothing at all, which might make the beginner think that the apparatus was not working. In these cases of absolute tolerance no hesitation is possible; it is the maximum quantity that you must employ after having reached it gradually. With other hysterical patients, on the contrary (rare, it is true), the sensibility is quite otherwise, they react keenly with the slightest dose. This intolerance should limit our action, and will oblige us to apply feeble or medium doses which will be the only ones the patient can easily bear.

In other patients, finally, still more rarely, I have observed the following fact, which is of the greatest interest: they seem to have a sort of complete anesthesia for the current of tension, which is not only tolerated, but which is not even felt.

I have then by exception, after having first tried this current, tried the current of quantity, which is generally borne with greater difficulty, as the patient is more hysterical, and then I observed a curious phenemenon. In such a patient, or in one who has borne the application of the current of tension too well, and the effect has been insufficient, if we apply the current of quantity, even the smallest doses are at once badly borne, and sometimes so badly borne that they render the patient liable to a nervous attack. Now therein lies the secret of the medication—the calm only comes when we have artificially provoked a nervous crisis by the intentional stress of the faradic current of quantity.

The tact of the physician will therefore consist either in arresting it quickly or slowly, and the patient, who has been in danger of a speedy nervous attack, will see it immediately aborting and suddenly terminating. At the same time the superpubic ovarian region will lose in whole or in part its former sensibility, and we can demonstrate, in such cases as present themselves with an imminent, intense ovarian crisis, dating back several years, and in which the slightest pressure on the ovarian region causes intense pain, that after a few minutes the tension current is borne with absolute tolerance.

I should here, however, make an important restriction. If this pain is called ovarian, it is because it depends on the ovarian nervous plexuses, but it is situated very high above them, and the neuralgic point called hysterogenous is found above the pubis, a large finger breadth along the superior edge of the pubis and two finger breadths outside linea alba. This point, which is hyperesthesic before the sitting becomes anesthesic after it, and the woman feels the pain absolutely and totally removed, on the condition, however, that we do not excite the source of the pain afresh, and do not by digital touch and palpation combined exercise pressure on the corresponding ovary.

I insist therefore on this fact, which I formulate thus: all hysterical pains are, as a rule, curable as far as *spontaneous pain* is concerned, and the patients generally complain no more of it. In this condition, pressure about the pubes remains painless.

Have I cured the disease or the source itself of the disease? Certainly not, and the proof is that direct pressure on the ovary by vaginal touch generally again calls forth the pain which was momentarily relieved, and moreover a relapse may occur after a long period of rest.

3. I come now to a third and last contribution, one which is absolutely new, and with which I will close. Certain women, apart from cases of ovarian neuralgia, present themselves to us with multiple neuralgia, localized in varying but limited points of the vulva or entrance to the vagina. They are cases of *incomplete vaginismus*, which, on account of the pain which they provoke, the obstacles which they often offer to sexual intercourse, poison the life of certain women and often resist all the treatment of the physician. I have observed in this line of study the most interesting and conclusive facts, which I shall shortly publish *in extenso*. I shall now only consider the principal ones.

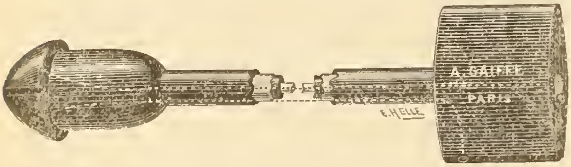
In one patient there was a unique neuralgia, localized at the level of the root of the labia minora dextra, in a point about the size of the end of index finger. Another had a neuralgia of the same kind in the fourchette, and in an extent quite as small. In a third case the neuralgia only affected the meatus. In a fourth case a painful spot of the same dimensions was localized on the left side of the entrance to the vagina on the middle of the left lateral partition.

Side by side with these typical forms I have seen several examples of a mixed form, both as to seat and extent.

The therapeutics which I have employed with success, and which I recommend to you, is the faradic current of tension, which is the curative agent *par excellence* if it is well and methodically administered.

Besides the general rules which I have already laid down concerning the dose, the dura-ration and the operative details, which are exactly applicable to the present case, there is a fourth special indication which it is most often obligatory to fulfill.

It is possible, as I have seen in a marked manner in a typical case, that uterine faradization alone may be sufficient, and that by reflex action we can relieve and cure such a case of neuralgia without acting directly upon it, and merely by uterine faradization from a distance. But this is the exception, and the rule is that you must as much as possible localize the electrical action to the point implicated. On this point alone it is especially necessary to concentrate the maximum effect, and it is to attain this object that I have had constructed an apparatus, the conical extremity of which contains the two poles side by side, separated by an isolating layer of gutta percha.



That which I have just now advised you to do for the uterus, by means of my bipolar sound, is also true in the present case by means of my bipolar excitor.

If, however, the vaginal neuralgia is severe, or if it affects a greater or less segment of the vulvar ring, this instrument will be insufficient, and to attain the object in view you must, by means of a large bipolar sound, perform a double vaginal faradization, taking the precaution to apply the external pole on the vulvar ring if it is affected.

I have here presented in the briefest form a few applications of the faradic current to gynecology. It is sovereign in hysterical neuralgias, useful only and sedative to a varying degree in inflammatory pains. You have just seen what an important place, on account of their frequency, cases of hysteria occupy in this method of treatment. I would, however, answer in advance a specious objection which might possibly be made and which is drawn from the influence of suggestion.

You might say "you cure the cases, but it is suggestion alone which procures this result." I declare this hypothesis to be false, and among many other proofs this is the principal one:

Faradize a woman without telling her a single word either of the treatment you are going to employ or of the result which you expect, and the effect will be identical with that which we obtain in a woman who has been told of it beforehand.

Moreover, the faradic current only relieves under fixed and precise operative conditions, both of duration and intensity. thus excluding the possibility of a suggestive influence which, however powerful under other circumstances, has no effect here.

PARIS, FRANCE.

Societies.

PHILADELPHIA CLINICAL SOCIETY.

Stated Meeting, October 28, 1887, the Vice-President, Dr. Mary E. Allen, in the chair.

Dr. Sophia Presley reported a case of rectal polypus, as follows: Willie C., a child six years of age, pale and sallow, who had always been delicate and of a constipated habit, was brought to my office by his mother, who said he had been suffering from "piles" about three months; that whenever he had an evacuation from his bowels there was blood partially covering the stool. This blood caused her to make an examination of the parts, when invariably she found a *fleshy mass* as large as a cherry protruding from the anus. After a short time it would be drawn in and not be visible until after the next movement.

She had previously consulted another physician, who considered it to be a case of hemorrhoids and treated it with various ointments, but without any beneficial results. I made an examination, but could detect nothing abnormal in appearance nor by the finger.

To help correct the torpidity of the liver and to overcome the constipation, I ordered

Hydrarg. chlor. mitis............	gr. ij;
Pulv. ipecac......	gr. ss;
Sacch. lact	gr. xx.

M. Ft. chart. No. xx. Sig: One powder to be given every two hours.

After the powders the child was to take a dose of magnesia and then continue with the following mixture:

Pepsin (Jensen's).............gr. xxiv;
Glycerine............. .... }
Aq. menth. pip............. } aa ℥iss;
Acid. tartaric..................gr. j.
M. Sig: Teaspoonful after each meal.

For local application I ordered:

Unguent. belladon............... }
Unguent. acid. tannic .... } aa ℥ss,
M. Sig: To be applied night and morning in and about the anus.

I requested the mother to return with the child at the expiration of a week. He was brought at the appointed time, and his mother stated he was brighter and better generally, but the bleeding still continued and the lump appeared at each evacuation as it had done previously. As she did not live far away, I asked her to send for me when she again noticed it. I was called the next morning, and, upon examination, found a purplish-red polypus as large as a cherry protruding from the anus. Upon making a digital examination I found the growth was attached just above the internal sphincter, on the posterior wall of the rectum, by a pedicle about one sixth of an inch in diameter.

The following morning I removed the polypus by cutting the pedicle, and to make *perfectly sure* there would be no bleeding I injected about two tablespoonful of extract Hemamelis Virginiana fluid, diluted with one of water, into the rectum, and ordered more of the mixture to be used in the same way should any bleeding be noticed. The child was to be kept perfectly quiet on the lounge all day.

I left the house satisfied that I had performed a successful operation, and had rendered hemorrhage impossible; but when I reached home, after making other calls, I found that a messenger had been there two hours before, urging my immediate presence. When I reached my patient he was almost in a state of collapse from the loss of blood, but from outward and visible signs the bleeding had ceased.

Soon after I had left in the morning the child had an inclination to use the commode, and while seated thereon his extreme pallor frightened the nurse, who quickly laid him on the lounge, almost half a teacupful of blood was discovered in the vessel. His mother immediately injected the hemamelis with apparent good effect.

Recognizing the grave aspect of the case, I felt the necessity of keeping up the strength of the patient and preventing a recurrence of the hemorrhage, while at the same time warding off septic symptoms. This I endeavored to do by administering quinine, in one grain doses, three times a day, giving as nourishment, milk, milk-punch, wine, beef tea, and broths of various kinds.

About the third day his skin presented a jaundiced appearance, and there was distension of the abdomen without tenderness. I now saw the importance of freeing the intestines from the accumulated blood and fecal matter, and for that purpose administered a large dose of castor oil, but without effect. I gave him another dose, with the same negative result. I then gave an enema of warm sweet oil, which he retained, and an hour after one of warm water, after which he had a passage of fetid, coagulated blood. For fully three days these bloody, offensive evacuations continued at frequent intervals. At the expiration of that period the patient showed signs of decided improvement, although the unhealthy appearance of the skin remained. The vigorous use of proper stimulants, tonics and refreshments gradually induced a more healthy condition, and in a reasonable length of time he recovered his original strength, and has since (a period of almost three years) shown no symptoms indicating similar trouble.

In conclusion, Dr. Presley said: "Although this operation was successful in the end, all the accompanying symptoms convinced me that, to have prevented hemorrhage and its attendant consequences, I should have ligated the pedicle."

Dr. Edward E. Montgomery then exhibited a set of O'Dwyer's tubes for intubation, also those modified by Waxham, of Chicago, and gave an analysis of twenty-five cases on which he had performed the operation. Of these twenty-two were seen in consultation with other physicians, many when the chances of a successful operation were impossible. One of the three cases in Dr. Montgomery's own practice was the victim of a second attack of croup, the child requiring the tube a second time, six months after having been operated upon once. All these cases were successful. Ten of the twenty-five cases had diphtheria, six of which recovered. The remaining fifteen operated upon were afflicted with membranous croup, seven recovering.

The most frequent cause of death was broncho-pneumonia. The youngest child to recover was sixteen months old, the oldest, eight years. Eleven of these children were under three years of age; six recovered. Of the fourteen over three years of age who were operated upon, seven recovered, showing a greater percentage of recoveries in favor of those under three years, and the decided advantage of intubation over tracheotomy, which is considered less favorable in persons under three years of age than later.

The shortest time the tube was worn in a case which recovered was three days, the longest time was three weeks. In conclusion, Dr. Montgomery urged the value of this operation, stating, as its advantages over tracheotomy.

1. The greater readiness with which parents give their consent to an operation in which no anesthetic and blood-letting are necessary, thus gaining valuable time by operating early.

2. The same skilled attention is not necessary after intubation as after tracheotomy. The secretions are apt to become dry and accumulate in the tracheotomy tube, rendering its frequent removal and cleaning imperative. In intubation the air passing through the mouth keeps the membrane moist, and there is no necessity for the removal of the tube.

MARY WILLITS, M. D.,
Reporting Secretary.

Reviews and Bibliography.

A Reference Hand-book of the Medical Sciences, embracing the entire range of Scientific and Practical Medicine and Allied Science, by various writers. Illustrated by chromo-lithographs and fine wood engravings. Edited by ALBERT H. BUCK, of New York City. Vol. V, MIL.-POT. Royal 8vo, pp. 813; leather. New York: William Wood & Co. 1887.

The fifth volume of this royal work takes rank worthily with its predecessors in matter and make-up. It is the contribution of eighty-five writers, many of whom are known to the medical world as masters of the subjects they here discuss. In the performance of the contributors to this and the preceding volumes, there is good warrant for the prediction that the work when complete will describe the full circle of the medical sciences, and so set it to the physician's hand that the desired item can be found when wanted without trouble or loss of time. Indeed, it would be possible for the student to become learned in medicine were this his only text-book.

The illustrations are very numerous and in the best style of the book-maker's art. Elegant wood cuts are found on almost every page, while eight charts and full-page lithographs, illustrative of ophthalmological topics, microphotography, and pneumo-pathology, add dignity and beauty to the volume.

A Manual of the Physical Diagnosis of Thoracic Diseases. By E. DARWIN HUDSON, jr., A. M., M. D., Professor of General Medicine and Diseases of the Chest in the New York Polyclinic, etc. 8vo, pp. 150; cloth. New York: William Wood & Co. 1887.

This is a posthumous work of one of the brilliant young teachers of the New York Polyclinic. Its gifted author sickened and died just after the manuscript was sent to the printer, and the book appears without his final revision. This work, however, has been conscientiously done by the author's friend, Dr. Lawrence Johnson, and the volume comes forth complete as to matter and with fewer errors than are usually found in the first edition of a book of the same size. The subject of the work of course does not allow much scope for originality, but the author, while making free use of the labors of his predecessors in the same field, has been able to draw from his own large experience not a few new and valuable observations. The arrangement of the work is scientific, the diction vigorous and graceful, and the subject-matter admirably condensed. Several chapters are devoted to the synopsis of diseases, and in these the author appears at his best. His power to compress into the compass of a few pages a multitude of facts is here made known, and his example might well be followed by not a few of our modern book-makers. The treatise will take rank among the best working manuals in this department of medicine.

A Practical Treatise on Renal Diseases and Urinary Analysis. By WM. HENRY PORTER, M. D. Pages, vi–349. New York: William Wood & Co. 1887.

Without having presented much that was not already before the medical public, the author gives all that is valuable in the literature of diseases of the kidney, and puts his views in an attractive form.

In the important department of urinary analysis the work is especially full, attention being paid not simply to the chemical or microscopical examination of samples of pathological urine, but also the appearance and reactions of physiological urine. The plates, of which there are some two hundred, are of a superior character.

Surgery: its Theory and Practice. By WILLIAM JOHNSON WALSHAM, F. R. C. S. With two hundred and thirty-six illustrations. Pages, vi–655. Price, $3.00. Philadelphia: P. Blakiston, Son & Co. 1887.

Believing that the text-books in general use have, with the advance of surgery in recent years, grown to such length that it is quite impossible for the student to master them during the comparatively limited period allotted to dressing in the wards and out-patient room, the author designed the present work to aid him in gaining a general insight into the theory and practice of surgery while yet engaged in the practical work of the hospital; a time when such knowledge should be of special value to him.

The subject has been presented in as brief and terse a manner as is consistent with its proper treatment, attention being given to the indications that should guide in practice rather than to details of treatment. The subjects with which experience is most likely to require the student to be acquainted are given special prominence, while rarer injuries or diseases have been very briefly treated. It is not intended to take the place of any of the larger manuals on the subject, but only to supplement their use. For this purpose it is not surpassed by any book of its scope.

The Physician's Visiting List (Lindsay & Blakiston's) for 1888. Thirty-seventh year of its publication. Philadelphia: P. Blakiston, Son & Co.

This, the oldest of the visiting lists, has acquired in the present edition considerable new and valuable matter without increase in the number of its pages or the sacrifice of any of the features which have made the preceding editions useful and popular. It is replete with such medical items as are needed by the physician in emergency, presents the full number of blank leaves with appropriate headings, and yet makes good its claim to being the "smallest and lightest visiting list published."

It is issued in one or two volumes, with space to accommodate from twenty-five to one hundred names per day or week, at prices ranging from $1.00 to $3.00. Interleaved copies will be furnished if desired.

The Medical News Visiting List for 1888. Philadelphia: Lea Bros. & Co.

This popular visiting list has been thoroughly revised and brought up to date in every respect. The text portion (48 pages) contains the most indispensable data for the physician and surgeon, including even the latest therapeutic novelties, their doses and effects; while the classified blanks (176 pages) have been rearranged and somewhat condensed, with an obvious gain in convenience. The Obstetric

Engagements and Obstetric Practice, for instance, are now together, instead of being separate as formerly. Three styles are now published: Weekly (dated), for 30 patients; Monthly (undated), for 120 patients per month, and Perpetual (undated), so that the List adapts itself to any system of keeping professional accounts. Each style is in one volume, bound in handsome red leather, at $1.25. When desired, a ready-reference thumb-letter index is furnished, which is peculiar to this visiting list, and will save many times its small cost (25 cents) in the economy of time effected during a year.

The Mineral Waters of Vichy, and the Diseases in which they are Indicated, followed by a sketch of some of the Principal Excursions in the Environs. By Dr. C. E. CORMACK, of Paris. Pages, 375. London: I. and A. Churchill. 1887.

This neatly gotten up book is perhaps the finest water-cure advertisement in existence. The fine paper, flexible binding, and clear, attractive type would seem to show that it is intended for the valise of such as have money but not health. It is a work that most physicians in this country can do without. But whoever shall go to Vichy will do well to take this handy reference book along with him.

Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The third annual report of the Hospitals Association shows that the number of members and associates is steadily increasing, and that representatives of the most important hospitals and nursing institutions are joining the Association in considerable numbers. The scheme of Sir Andrew Clark, M. D., for increasing the funds of all the hospitals is now being brought under the notice of the clergy of all denominations and of the representatives of other bodies, beginning with the metropolis. It proposes that all persons interested in the treatment of the sick poor, especially the managers of hospitals, boards of guardians, clergymen of all denominations, and local representative societies should affiliate themselves to the Hospitals Association in London, by the formation of a local hospital association. Its aim will be to supply all kinds of information on hospital questions, to give advice respecting the organization, management, and maintenance of all classes of hospitals, to arrange for lectures to such local hospital associations as may desire them, and to render assistance in the management of public meetings for the furtherance of hospital purposes.

Mr. Longuet Higgins, Associate of the School of Mines, has described a process for the manufacture of chlorate of potash by means of magnesia. The idea of substituting magnesia in place of lime for the absorption of chlorine was worked out and patented in 1883. Up to the present time, however, chloride of magnesium had resisted profitable decomposition. The objects in using magnesia were the production of more chlorate of potassium from a given quantity of muriates than would be obtained when employing lime, and also chloride of magnesium, which, instead of being run to waste as the calcium chloride is, could be concentrated in aqueous solution till it formed a mass on cooling.

Mr. J. D. Malcolm, in speaking lately on the condition and management of the intestine after abdominal section, drew special attention to the origin and distribution of the nervous supply of the parts involved, and to its influences on the production of peristalsis, of intestinal secretions, and of intestinal gases. He considers that all the functions of the intestines are under the control of automatic nervous plexuses in its walls, these being closely associated with the central nervous system, but are also affected by all stimulations acting directly upon them. He suggests that the chemical action of one intestinal secretion on another may be a source of the excessive flatulence of certain diseases, but which seems to be in some measure connected with defective or deranged innervation. Mr. Malcolm then showed that in every abdominal section the intestine is abnormally stimulated, and the result is compared to that which causes the after-constipation of purgatives. He thought that paralysis of the bowel after these operations passed into paresis and gradually recovered at the end of from four to six days, and he observed that the excessive development of intestinal gases which occurs at this time is connected with defective or deranged innervation. Intestinal paresis is shown to be an important factor in the production of obstruction of the bowels in these cases, and a possible sole cause of the death with symptoms of obstruction. The symptoms of obstruction of the bowels after abdominal section and the mode of death is due to excessive or irritating discharges retained in the peritoneal cavity, which quickly produce symptoms of obstruction and of peritonitis. A combination of peritonitis, blood poisoning, and paralytic obstruction of the bowels constitutes septic peritonitis. In the management of these cases stress is laid upon the necessity of having the bowels cleared of all accumulations before operation, and the use of the greatest care in avoiding all unnecessary exposure and manipulation of parts during operation. The stimulating and chilling effects of carbolic acid and of Lister's spray producer he mentioned as being dangerous. After operation the bowels are to be insured rest by the administration of opium. Vomiting and abdominal distension, with absence of peritonitis, are to be treated early by the use of purgatives. Should general or extensive peritonitis occur, the treatment is drainage, rest, and suitable nourishment administered by the bowel.

The Metropolitan Board of Works are undertaking extensive works, at a cost £406,000, at the outfall of their main sewer at Barking Creek on the Thames, to prevent the river in future becoming in the hot season a danger to health. Thirteen precipitating tanks on the land side of the existing reservoir will receive the sewage, which will remain for two hours in a quiescent state for the deposition of the sludge. The effluent water will then be run off into the river, and the sludge into other tanks, where it will settle for ten hours longer to remove more of the liquid, which will be used for mixing with lime to form a precipitating agent. The settled solids, still containing ninety per cent of moisture, will be passed through pipes and loaded into ships, in which, unless it prove of commercial value, it will be carried away to sea. Experiments made with some of the sludge in manuring crops lead the board's engineer to think it will be sought after as a marketable commodity.

A very ingenious inhaler has been invented by Mr. Charles Smith, of Brighton, for the administration of a mixture of methylal and the nitrite of amyl (ten parts of nitrite ninety parts methylal). Dr. W. B. Richardson speaks very highly of it. The vapor given off by this mixture is extremely pleasant; but at the same time it is more than pleasant, by the combination the action of the nitrite is less sudden and much more prolonged, a very considerable advantage.

Speaking of methylal, Dr. Richardson considers it to be hypnotic and antispasmodic, its action being between methylic alcohol and ethylic ether, resembling closely pure methylic alcohol in action. It can be administered by inhalation as vapor, by the mouth in aqueous solution, or by hypodermic injection. It reduces arterial tension. The sleep it induces is not profound unless the dose be excessive. It is quickly eliminated and causes no vomiting or stomachic disturbance. It reduces the animal temperature, but not to the same degree as common alcohol, but, like all bodies of its class, it must be given in increasing quantities in order to keep up its effects.

Professor Humphry, of Cambridge University, who was delegated to attend the International Congress on Hygiene, recently held at Vienna, reports that there were more than 2,500 members. The Professor contends that the interest shown in the various subjects evince the increasing importance which is being attached to sanitary science throughout the civilized world, and the advance which is being made in it, an advance that can not fail to lead to prolongation of life and an improvement in the general health and physical condition of mankind.

The death is reported of Dr. Benjumeda, Professor of Clinical Surgery in the Faculty of Medicine of Cadiz. He was well known throughout Spain as a most brilliant operator in cures of stone. It was but a short time that he was in England taking great interest in cures of his own special department.

LONDON, October, 1887.

PARIS LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Dr. Paul Topinard, the General Secretary of the Anthropological Society of Paris, is occupied in framing a chart of the color distribution of eyes and hair in France, on the model of the chart published by Broca, in 1860–66, giving the height of the different races forming the French population. In the *Revue d'Anthropologie* the docter draws attention to the fact that similar charts exist already in most European states, in the United States of America, and in British India, or are in actual preparation. He deplores that France should in this matter be behind other nations, the more so, that five-and-twenty years ago France took the lead in anthropological science. He therefore appeals to the good will and assistance of those whose position would enable them to participate in the work. To those who would desire to do so, Dr. Topinard will be glad to forward the forms to be filled in, a series of polychromic models to serve as guides in the distinction of the colors, and the instructions necessary.

In an article published in the *Moniteur de l'Hygeine Publique* Dr. Lacássagne and other investigators, on what they are pleased to term "Criminal Anthropology," have attemped to resuscitate the theory of Gall, that is to say the doctrine of sentiments, of instinct, of the passions of man placed fatally under the dependence of the conformation of the skull, of its dimensions and of its protuberances. According to Dr. Lacassagne the brain comprehends three great localizations: sentiment, activity, intelligence. At the back, at the occiput, are situated the sentiments; in the lateral or parietal regions of the head are found the functions of activity; in the front or the frontal regions are placed the highest functions, viz., intelligence. In a state of perfect equilibrium between the three departments of the brain the individual remains normal. If the equilibrium be interrupted, criminality may appear. There exist three types of criminals: criminals of sentiment, occipital criminals; criminals of action (parietal), criminals of thought (frontal). The criminals of sentiment or of instinct, the frontal, are the true, the incorrigibles; it is the criminal in whom are found the anatomical peculiarities mentioned above. They are imperfect, degraded beings. Criminality in them is a natural instinct, either hereditary or accquired at the commencement of life by force of example. They are necessarily habitual criminals; the social position in which they may be placed can do nothing to improve them. The criminals of action (the parietal) are criminals by passion or by opportunity. They are susceptible of improvement, of correction. The criminals of thought are lunatics. The state of their brains is the result of heredity, or of an acquired condition, generally paralysis, epilepsy, chronic meningo-encephalitis, etc., the subjects of which are consequently irresponsible for any criminal action committed by them.

Dr. Bordier, who has devoted particular attention to the subject of criminal anthropology, considers a criminal a simple atavist, that is to say, an heir of prehistoric times. The criminal, according to this author, has a mind of the barbaric period re-incarnated in modern times in a civilized midst. It is perhaps, he says, an ancient chief of a savage tribe coming back too late to a world too old. In other words, it is a degenerated, inferior individual. His theory is as good as any other.

Dr. Ferri classifies criminals as follows: (1) Instructive criminals. These present a congenital absence of the moral sense, which deprives them of the exact appreciation of the consequences of their actions, a complete moral and physical insensibility for all that concerns them and their accomplices. They manifest an absolute cynicism, and are completely devoid of the sense of remorse. (2) The passionate criminals, through disappointed love, loss of honor, etc., are accident criminals who do not foresee the consequence of their actions any more than the preceding ones. A momentary and transitory obliteration of the moral sense takes place in them. (3) Criminals by opportunity. (4) Criminals by habit. (5) Insane criminals constituting the third variety; whether they belong to the category of imbeciles or of epileptics, they are, in an anthropological point of view, absolutely identical with instinctive criminals, but they differ from them by the intellectual disorders which they present and also by some other psychological phenomena. In fine, one may look upon criminals as morally degenerated beings, and presenting the physical characters of degeneration which are ill-defined and inconstant. In all cases they are always dangerous for society, more or less unconscious, it is true, but whom is it necessary to sequester.

In his *Thése du doctorat* Dr. Pigornet recommends the employment of salicylate of soda in gonorrheal orchitis, which he says first causes a diminution of the pain in a few hours, followed by its complete cessation. Its action is, above all, constant in the acute cases of epididymitis accompanied with vaginitis, when inflammation of the spermatic cord predominates. This medication is often without effect. In all cases thus treated the resolution of the swelling commences earlier than in the cases submitted to treatment by antiphlogistics; it follows a regular course, and it may be achieved in less than eight or ten days, leaving after it only a slight induration of the epididymis. This medication, says the author, has the advantage of permitting the patient to go about in a day or two. By its simplicity, its innocuousness and its efficacity having been established, it presents great advantages over the other methods of treatment.

Dr. Bourgeois, a military surgeon, vaunts, in the *Archives de Médicine Militaire*, antiseptic injections in the treatment of gonorrhea. The affection, according to the author, is so much the shorter the earlier the antiseptics are employed, and the antiphlogistic and the emollient treatment of the first days would be useless. The antiseptic to which he gives the preference is the permanganate of potash in the proportion of five centigrams to one hundred grams of distilled water. Four injections should be employed daily at proper intervals. The liquid should be tepid, and it should be injected, according to the practice of Professor Guyon, by means of a small glass syringe in a divided quantity; the first half being intended simply to wash out the canal, the liquid is allowed to run out immediately; the second should be retained a few minutes. Soap water or lemon juice easily removes the stains the medicine leaves on the fingers and linen. Forty-two patients thus treated from the commencement were completely cured, without any complication or relapse, in nineteen days on an average, the extreme limits having been from six to thirty days.

Dr. Pinard, a well-known obstetrican, employs the following treatment with great success in cracked nipples: As soon as the cracks appear, and even as soon as the nipples become sensitive at the moment of suckling, a compress folded in four and steeped in a solution of boric acid is applied. The solution is of three or four per cent. Over the compress should be placed a piece of oil silk so as to prevent evaporation. Over the oil silk a layer of cotton wadding should be placed, and the whole secured by a bandage.

PARIS, November 4, 1887

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Diphenylamine, when added to a liquid containing the nitrates, yields a blue color. As the nitrates are present in all drinking-water, this will also occur when this substance is added to milk containing water. Hence we have a new and ready test for watered milk. The sulphate of diphenylamine is the preparation which should be used.

Nymphomania has been extensively studied by Dr. Routh, the author of Infant Feeding. An important fact which he relates is, that these women are "liars, plausible liars, cunning liars—liars not necessarily from ill will, or even free will, but from disease." They are a class of patients with whom the reputation of no medical man is safe and against whom we can not be too frequently warned.

The question of male nurses for sick men is demanding and receiving attention in

England. It is to be hoped that women will soon be freed from the trying duty of nursing large numbers of men in the hospital wards. In the family circle it is well enough, but for a woman to have to go in among a lot of strange, half-dressed men is certainly a trial to the natural woman. This idea of the soothing caress of woman, and her peculiar pat of the pillow is all well enough in poetry, but there is little except prose in a London hospital. The extensive experience had in military hospitals the world over bears out the worth of male nurses. The duties are certainly arduous enough for the strongest man.

Two patients inoculated by Pasteur have recently died in the United Kingdom.

Dr. W. J. Sinclair, of Manchester, advances the theory that, in gonorrhea in women, the disease does not attack the vagina first, but it attacks the uterus from the start. In searching for the gonococcus we should take specimens from the cervix or the urethra, and in exceptional cases from the orifices of the glands of Bartholini.

The question of antiseptics is still diligently discussed in London. Almost every hospital has its advocates and its opponents to the system.

Dr. Clement Godson, of St. Bartholomew's Hospital, treats the sterility due to chronic cervical endometritis quite successfully both as to the removal of the sterility and the cure of the discharge by the application of a mixture of liquor ferri sulphatis and glycerine.

Embryotomy is employed less and less frequently every year. It is the hope of many that this operation on the living child will soon pass into oblivion, giving place to the forceps and cesarean section. The mortality of forceps cases and cesarean section decreases as their numbers increase.

A new method of giving protection to the perineum is suggested by Dr. D. Berry Hart of Edinburgh. The accoucheur should press with his thumb, guarded with a napkin soaked in hot sublimate solution, gently in front of the anus, the patient on her left side. This pressure should be made nearly in the direction of the axis of the pelvic outlet. This hinders the descent of the sinciput and favors that of the occiput.

Efforts are being made on the part of a few teachers in the United Kingdom to bring into favor here the dorsal position in operations and examinations upon the female.

The British Gynecological Society met in regular session October 26th, with the President, Dr. G. Granville Bantock, in the chair, Dr. J. Mansel-Moulin, Honorary Secretary.

Incipient epithelioma of cervix uteri was the subject of discussion.

Dr. Edis exhibited the cervix uteri removed from a patient aged fifty-four. There was a hard, nodular, circumscribed growth on the posterior lip, bleeding readily when touched by the finger, and so closely simulating the early commencement of epithelioma that it was only after microscopical examination of a section that a reliable diagnosis could be made. The morbid changes were confined entirely to the superficial portion of the nodule and consisted of a multitude of closely packed granulation cells, such as always exist at the base of an ulcer. The bulk of the nodule was composed of wavy bands of fibroid tissue full of young and ill-formed blood-vessels. Dr. Edis thought the right course had been pursued in removing the cervix. He has found the clinical history did not always bear out the microscopical prognosis. The cervix bleeding readily upon touch had hitherto proved a most reliable symptom of commencing epithelioma, but in this case had proven untrustworthy.

Dr. Heywood Smith said that retroflexion of the uterus was a frequent cause of the condition which obtained in such cases, viz., chronic inflammation of the posterior lip, followed by an indurated deposit (areolar hyperplasia) and subsequent granular disease. He objected to the term "ulceration" being employed to describe what is more correctly an abrasion, or, as the nomenclature of the College of Physicians had it, "granular inflammation" of the cervix uteri. True ulceration apart from malignant disease was very rare, not so granular disease superimposed upon an indurated base.

Dr. Mansel-Moulin said the diagnosis of commencing epithelioma from a mere granular condition was of great practical importance with a view to effective operative treatment. It presented a difficulty which was constantly recurring. Hemorrhage on diseased surface was by far the most reliable symptom, but it was not absolutely pathogonomonic of malignancy. He had seen a soft granular condition of the cervix in a young woman, aged twenty, which had bled so freely that it was necessary to plug the vagina. Subsequent observation proved the non-malignant character of the case.

Ovarian Cyst. Dr. Davies, of Liverpool, gave notes of a case of successful ovariotomy on a patient seventy-five years old. The tumor filled the abdomen completely and was universally adherent to the anterior parietal peritoneum. There was much difficulty in differentiating between the cyst wall and the peritoneum during the operation. The incision in the abdominal wall was about two and one fourth inches The catheter was not used after the operation, and the patient was allowed to roll about the bed as she liked, and to eat whatever she fancied. A dose of Epsom salts was given on the third day. The wound healed by first intention. No morphia was given subsequent to operating, as is customary. Dr. Davies deprecates the practice unless there be special need for it to allay pain or restlessness.

Dr. Fancourt Barnes had found bed-sores the chief danger in old people after ovariotomy. His plan was to have the patient moved from time to time, first on one side then on the other, instead of keeping her flat on her back. Apart from the trouble from bed-sores there was no reason why the aged should not recover as readily as the young or middle-aged.

Dr. A. E. Barrett said that it was necessary to exercise care in the employment of water beds in such cases. He had known serious and even fatal results ensuing from the large body of water abstracting the caloric and lowering the temperature of the patient. The temperature of the water should be regulated.

Dr. Robert Barnes Dr. Aveling Dr. Bedford Fenwick, Mr. Reeves, Mr. Bland Sutton, Dr. Carfrae, and others took part in the discussion.

Mr. Lawson Tait contributed notes of a group of twelve cases of ruptured tubal pregnancy, in which he had performed abdominal section, and tied the bleeding points on account of hemorrhage which threatened life. He had already reported twenty three such cases in the columns of the British Medical Journal. All of these had recovered except the first. Of the last twelve cases eleven had recovered and one died. Each of these operations had been performed under conditions of the utmost gravity, and he had no hesitation in saying that nearly if not quite all these lives would have been sacrificed but for prompt interference.

The first case had failed because he did not know what to do. He was too long at the operation and wasted too much time securing bleeding points as they arose, instead of rapidly separating all adhesions, regardless of the bleeding points, down to the base of the tumor, which was the broad ligament. A ligature placed around that, and secured, at once arrested the hemorrhage, not a drop was lost afterward. In the other fatal case the hemorrhage had already progressed too far, the patient was almost dead at the time of operating. She made a great struggle to get through, and lived five days He regretted not having employed transfusion in this case. Mr. Lawson Tait says the diagnosis is not always possible, but it may be made correctly in about eighty five per cent of the cases. The real clue to the nature of the case is a history of sterility, or for some considerable time the arrest of menstruation for weeks or even months, and a sudden access of pain and collapse, with repetitions of these attacks. The operation is simplicity itself. Open the abdomen, go at once to the seat of rupture, that is the broad ligament, and tie it. Until you come to the ligament itself the tissue is always so rotten and triable that any attempt to arrest the bleeding in other ways will not succeed Then clear out the *debris* and put in a drainage tube.

Of course amputation of the ligatured mass is a necessity, no one would dream of leaving such a mass to putrefy in the abdomen. Some proposed to destroy the life of the fetus and arrest the growth of the ovum, but he had never been called to such cases until such a proposal was too late. He had never seen them until the period of rupture, hemorrhage was the danger with which he was concerned. Further, there was abundant proof that hemorrhage might go on after the fetus had been dead for weeks. He doubted that a diagnosis could be made before the period of rupture. If it were possible to pierce the body of the fetus with an electrolytic needle, it might kill it, but would it kill the placenta? There was no question that in these cases the placenta continued to grow after the fetus was dead. All these thirty-five cases, produced within the short period of seven years, confirmed the statement of Dr. Blundell that the condition was by no means uncommon, and the real cause of the death was never ascertained in many instances of women dying from internal hemorrhage. Thanks to the emancipation of the professional mind from the thralldom of authority within the last ten years, we have now the means to save at least the great majority of these cases, if we only had reasonable time in which to act.

London, November 8, 1887.

Ear Cough.—Percy Jakins (Practitioner) relates an interesting case in which cerumen in the ears was the cause of pulmonary symptoms. The patient, a man forty-nine years old, had caught cold four years before, which was attended by a troublesome hacking cough. Thirteen weeks before he came under the author's attention, emaciation, night sweats, delirium at times, and insomnia set in. The case was looked upon as one of phthisis, and a very unfavorable prognosis given. The author found mucous *râles* over both lungs and cerumen in both ears. On removal of the cerumen, improvement set in at once, and all the symptoms vanished within three months.

Translations.

Leprosy.—Dr. Ernest Besnier recently read a report on leprosy, in the Academy of Medicine, presented by M. Leloir, of Lille. The following is a *resumé* of the report: Far from being an ancient malady, leprosy holds a prominent place in general and international epidemiology; it possesses for our country a direct interest. It is neither an accidental, spontaneous nor toxic affection; it is an exclusively human malady, and specific with a determinate bacterial element. It is transmissible under conditions partly understood and partly unknown; man seems to be the sole agent of the transmission. It is almost certain that it may be inoculated, during vaccination for example. It is certain that man transports it from one place to another, and that it remains attached to him and not to the soil. It is certain that one may contract it by heredity, but the hereditary peril is infinitely less than has been hitherto believed. Extrinsic conditions, such as social misery and sordid promiscuousness, favor the propagation of the malady; the reverse conditions almost annihilate the contagious property. In securing these conditions medicine may oppose to leprosy a certain prophylaxis, based on the progress of hygiene and general sociology, without having recourse to the cruel proceedings of another age, and remaining faithful to the liberty and humanity which are the purest glory of our epoch. — *Le Progrès Medical.*

Strychnine in Dipsomania. — Popou reports two cases of dipsomania cured with strychnine:

A. P., a gifted author, was descended from a neurotic family. The father was a drunkard; two brothers suffered from epilepsy; a third, a hard drinker, died in consequence of alcoholic excess; the fourth brother, a morphinist, poisoned himself with morphine. The patient did not drink at all until twenty years of age, when it produced a severe catarrh of the stomach, and he again left it off. Since that time the patient related that after certain intervals, unrest, irritability, sleeplessness, and loss of appetite supervened, he became melancholy, withdrew from company, and finally experienced an uncontrollable desire for alcohol, which he finally, in spite of all resistance, was compelled to yield to. He drank constantly alone, shut up in his room, till he fell asleep, woke up and drank again, continuing thus for a week at a time. Then he conceived a strong disgust for spirits, together with great depression, headache, palpitation, indisposition to labor, till he gradually returned to the normal condition, when for from one to three months he would feel quite well, then, again, the attack would return. If any one sought to restrain him from alcohol he would become angry and greatly enraged toward those around him. Of the period of drunkenness he had only a very dim remembrance; he heard all possible voices, though perfectly aware that they were hallucinations.

For three years, the patient stated, on entering a large empty room or an open field a sensation of weakness, fear, and helplessness, together with an indescribable feeling of anxiety overcame him, which disappeared when the room was filled with men or he went among houses. If he constrained himself and ran through open places, he felt extremely exhausted and had to rest for some minutes, bathed in sweat, before he could renew his journey. Furthermore, he lost self-reliance; he did not know whether he had done a task or not, and was compelled to reassure himself from those around him. After long and ineffectual treatment, at the end of August, 1885, during an attack and while the patient lay perfectly helpless in bed, a hypodermic injection of strychnine of one thirtieth of a grain was made. From the time of the injection he got no more wine. He complained only of headache, weakness, and loss of strength, which continued forty hours.

The injection was practiced at first every day, then every second day, and finally twice per week till the beginning of September, when the patient returned to his normal condition.

In the beginning of October restlessness, sleeplessness, and all the other symptoms of a new attack set in, when the injections were again renewed. Immediately after the first injection ($\frac{1}{60}$ of a grain) the general condition improved. The patient slept unusually well, and appeared in company. He then got one injection ($\frac{1}{60}$ of a grain) weekly. Twice afterward strong desire arose for alcohol, but the patient was able to resist it. He returned very quickly to the normal, and has had since then no relapse. All other unpleasant experience very promptly disappeared.

A second case, previously a regular drinker, was overtaken with dipsomania, several times attempting suicide. He promptly recovered under the use of a somewhat larger dose of strychnine.

Sawalsky reports four very interesting cases of dipsomania that recovered under the use of strychnine.—*Memorabilien.*

COCAINE IN STOMACH AFFECTIONS.—Salet, of St. Germain en Laye, has come to the following conclusions:

1. Cocaine acts on the mucous membrane of stomach and intestines just as certainly as on the external mucous membranes.

2. That the effect may be perfect, the secretion of the stomach and intestines should be increased and the cocaine united with an alkali.

3. To this combination morphia should be added to prolong the effect as far as possible.

THE PLETHORA OF DOCTORS.—We have often directed attention to the painful situation in which a great number of young physicians find themselves who, after having passed the finest years of their lives and spent a small fortune in obtaining a diploma, are greatly embarrassed to find a modest situation. There is no need of dissimulation; there exists in our profession a veritable plethora, and it is well to warn young men who may be tempted to embrace a medical career in hope of capturing a fortune. Furthermore, this plethora is universal. In Belgium the four faculties, catholic and liberal, rival each other in zeal and throw into circulation a large number of physicians who are afterward much embarrassed in gaining a living.

In America, as elsewhere, complaint is made of the excessive number of physicians; there are too many doctors it is said, and the studies are too easy. This is indicated by the statistics.

In 1883 there were estimated to be, in the United States and Canada, 90,140 physicians, or one to every six hundred inhabitants. In Canada alone there were 3,487, or one to 1,112. At the time of the census of 1880 the proportion of physicians relative to the rest of the population was 17 to 1,000; in 1881 the proportion for England and France was 5.8 per 1,000. It is hardly correct to compare the figures, for in America a large number of persons not registered are numbered among the physicians, nevertheless it is probable that the number of regular physicians in the United States is twice as large as in England.—*Jour. Med. de Paris.*

Muscular Movements after Death.—Brown Sequard, in a recent communication to the Academy of Sciences, described certain movements of contraction and relaxation in the muscles after death, and even throughout the period of cadaveric rigidity. These movements, which it has been possible to register by the graphic method, are absent only in the rarest instances. They seem sometimes to be very regular, almost rhythmic, but the regularity appears only tardily after the second day at the earliest. The great movements appear only two, three, or four days after death. They show themselves at times toward the third or fourth week. The muscles paraylzed by section of the sciatic do not present these movements, except lengthening at the beginning, since there is a loss of the tonic influences of the spinal cord. The muscles thickened by energetic faradic currents do not exhibit shortening but very considerable lengthening. If we compare the muscles of the two sides of the body of the same animal, we perceive nearly always a considerable analogy between the two sides. If the comparison is made with the muscles of two animals, a considerable and often radical difference is discovered. These movements do not have their especial cause in the external physical conditions, for muscles of different animals at the same time give rise to very different tracings; one muscle may contract while another remains in repose. These movements depending on the persistence of muscular irritability, that is to say, on the fundamental property of muscular tissue, persist during cadveric rigidity and up to putrefaction.—*Le Progrés Medical.*

Abstracts and Selections.

Idiopathic Hypertrophy and Dilatation of the Heart.—O. Bollinger, of Munich (*Dtsch. Med. Ztg.*), answers in the affirmative the still undecided question, if hypertrophy and dilatation of the heart ever exist as an idiopathic affection. He publishes the pathological results of forty-two marked cases that came under his observation from March 1, 1883, to March 1, 1886. Of the patients, thirty-eight were men and four were women, their average age being forty-three years, the average weight of the heart being 535 grams and that of the body 71 kilograms. All cases in which hypertrophy was found incidentally in any form of chronic or acute disease, in any valvular affection or endocarditis, or arterial sclerosis, were purposely discarded. The patients presented the clinical picture of weakness of the heart, and during life hypertrophy without any affection of the valves had been diagnosticated. Normally the ratio of the weight of the heart to that of the body is 1 to 216; in the foregoing cases the ratio was 1 to 132, the heart therefore being one third larger than the normal heart. The diagnosis also of dilatation was made after exact measurements. All patients above sixty years of age were excluded, as from that age up there are many senile complications which would disturb a clear view of the condition. The author found that both ventricles were hypertrophied, but the muscle fibers under the microscope showed little or no degeneration, so that neither the symptoms nor death could be referred to fatty degeneration. The patients were mostly strongly built, muscular persons, with considerable adipose tissue. The affection runs an acute or subacute course without any elevation, but not infrequently with a lowering of the temperature. As to why this condition should be so common in Munich, Bollinger refers to the notoriety of the city as a beer center, and to the fact that the citizens are mostly plethoric. In beer-drinking three factors are at work: (1) The topical action of the alcohol, (2) the increased quantity of the circulating fluid through the ingestion of the beer, (3) the rich nutriment of the beer. In the consumption of rich and good food, with liberal quantities of wine, the same condition may be brought about. The author attributes an inferior *rôle* only to violent muscular exercise. Heredity acts only in so far as the constitution and habits of life are inherited. Repeated pregnancies never lead to this affection; on the other hand, the author asserts that the infectious diseases and acute rheumatism favor the acquisition of the disease. The cause of death is, in most cases, cardiac insufficiency, the origin of which is still obscure and, in the absence of a sufficient anatomical lesion, must be looked upon as of a functional nature.

AMERICAN GYNECOLOGISTS.—In an address delivered at the University of Edinburgh, on his return from the International Medical Congress, Dr. A. R. Simpson speaks of some eminent gynecologists in the following exalted terms.

Laparotomy. First of all, he said, we must acknowledge America's just claim to be the birthplace of ovariotomy. The conception was not peculiarly American. It had been thought of elsewhere. It had been talked of and written about, but only to be talked down and written down. It had even been attempted, but usually only in a doubtful and tentative sort of way in isolated and unsuccessful cases. In 1809, at Danville in Kentucky, a practitioner who had already achieved a surgical reputation for success in lithotomy and hernia—numbering among his thirty-two lithotomies (all successful) an operation on young James K. Polk, who afterward became President of the United States—removed an ovarian cystoma. The patient recovered. Four years later he repeated the operation on another patient with successful result. After the lapse of two more years he for the third time saved a life by extirpating an ovarian tumor. He did not publish his cases till 1817, and then in a somewhat slipshod fashion in an American journal. He sent a copy of his paper to his old teacher, John Bell, of Edinburgh. John Bell was ill at the time and away on the continent in quest of health. The paper fell into the hands of John Lizars, who was doing duty in the absence of his friend. It could not have fallen into better hands. Stimulated by the perusal, Lizars opened an abdomen where he and some of the other Edinburgh surgeons and obstetricians believed the patient to be the subject of an ovarian tumor. He seems to have supposed that the American's success was in some measure due to climatic conditions, from this sentence: "As inflammation appears to be generally induced by exposure to cold, and as these cases succeeded so well in America, I desire the room to be heated to 80° F." The diagnosis proved to be wrong, but the patient recovered, and Lizars republished in the Edinburgh Medical Journal for October, 1824, the cases of the more successful American surgeon prefixing a brief historical notice of the operation, and appending the history of his own case.

How this first public announcement of the splendid achievement was received in England let the editor of the London Medico-Chirurgical Review, writing a notice of Mr. Lizar's paper, reveal to us:

"Passing over the records of surgery, all of which can not be depended on, we shall come at once to the recent facts, or alleged facts, communicated in this paper by Mr Lizars. Three cases of ovarian extirpation occurred, it would seem, some years ago in the practice of Dr. Macdowal, of Kentucky, which were transmitted to the late John Bell, and fell into the hands of Mr. Lizars. We candidly confess that we are rather skeptical respecting these statements, and we are rather surprised that Mr. Lizars himself should put implicit confidence in them. A woman supposed to be parturient was visited by Dr. Macdowal at the instigation of two physicians who considered her in the last stage of pregnancy. Dr. Macdowal found the uterus unimpregnated, but a large tumor in the abdomen movable from side to side. The woman traveled sixty miles on horseback to have an operation performed. Dr. Mac made an incision nine inches in length, parallel with the rectus abdominis, and right into the abdominal cavity. The tumor appeared in view, but could not be removed. A ligature was thrown round the fallopian tube, the tumor cut open (found to be the ovarium), and fifteen pints of dirty gelatinous stuff extracted, after which we cut through the fallopian tube and extracted the sac, which weighed seven pounds and a half. As soon as the external opening was made the intestines rushed out upon the table, and they could not be replaced till after the operation was performed, which lasted twenty five minutes! The wound was sewn up by means of the interrupted suture, assisted by means of adhesive plaster. Dr. Mac visited the patient at the end of five days, though she had come to his own residence to have the operation performed!! He found her engaged in making her bed! She soon returned to her native place, quite well. *Credat Judæus, non ego.* The second case is little less extraordinary, if not incredible. A negress had a hard, painful, fixed tumor in the abdomen. Dr Mac placed her on a table, laid the abdomen open, inserted his hand, and found the ovaria very much enlarged, painful to the touch, and firmly adhering to the bladder and fundus uteri. To extract this (two ovaria), he thought would be instantly fatal; 'but, by way of experiment,' says the doctor, 'I plunged the scalpel into the diseased part, when some gelatinous substance, as in the above case, with a profusion of blood, rushed to the external opening, which I conveyed off by placing my hand under the tumor, aud suffering the discharge to run over it.' A quart or more of blood escaped into the abdomen. The same dressing and the same success as in the first case. We can not bring ourselves to credit this statement."

The same Review writer, in January, 1825, has still, no doubt, the Kentucky operator in his mind when he falls foul of the great obstetrician, Dr. Blundell, for thinking that ovariotomy will ultimately come into general use, and saying, "If the British surgeons will not patronize and perform it, the French and American surgeons will;" for, he adds, "In despite of all that has been written respecting this cruel operation, we entirely disbelieve that it has ever been performed with success, nor do we think it ever will."

How hard it is to move a man who has committed himself to the position of a skeptic may be seen from the matter in which this writer returns to the subject in October, 1826, after the North American Medical and Surgical Journal had come into his office to tell him that "Dr. Mac," as he had contemptuously called the ovariotomist, had operated not only three, but five times, and in four of the cases with success.

"*Extirpation of an Ovarium.* A back settlement of America (Kentucky) has beaten the mother country, nay, Europe itself, with all the boasted surgeons thereof, in the fearful and formidable operation of gastrotomy with extraction of diseased ovaria. In the second volume of this series, page 216, we adverted to the cases of Dr. Macdowel, of Kentucky, published by Mr. Lizars, of Edinburgh, and expressed ourselves as skeptical repecting their authenticity. Dr. Coates, however, has now given us much more cause for wonder at the success of Dr. Macdowel; for it appears that out of five cases operated on in Kentucky by Dr. M. four recovered after the extraction, and only one died. There were circumstances in the narratives of some of the first three cases that raised misgivings in our minds, for which uncharitableness we ask pardon of God, and of Dr. Macdowel, of Danville. The two additional cases now republished (for it appears that the cases were published, though in a very unsatisfactory form, in the American Eclectic Repertory) are equally wonderful as those with which our readers are already acquainted." And toward the close of the article he says, "It was this moderation that excites our skepticism, and we must confess it is not yet removed."

Now the man whose splendid success in a new field was received with so much scorn and skepticism, not only on this side of the ocean, but his own, was no harphazard adventurer out in the wild West. Born in Virginia in 1771, and moved with his father's household to Kentucky in 1782, where his father became Judge of the District Court, he seems to have had but an imperfect training in letters in a land that, during his childhood, was fighting its way to freedom. After leaving school he studied medicine with Dr. Humphreys, of Staunton, Virginia, a graduate of the University of Edinburgh. Philadelphia was then the only seat of medical education in the United States, and doubtless it was at the instance of the Edinburgh *alumnus*, with whom he had been reading for two or three years, that the eager student crossed the deep, and came to enroll himself among the *Cives Academie Edinensis.* In the roll of session, 1792–93, I find that Ephraim McDowell has inscribed his name. It was not then the custom for the entrant to give his place of birth and residence, so he has simply signed his name, and opposite the signature the secretary has noted that he is entered to study chemistry. In that subject he would come under the inspiring influence of Joseph Black; and as he had no other University class that session, it was probably during it that he studied surgery with John Bell.

In a biographical sketch of him by the late Professor Gross, of Philadelphia, it is stated very confidently that it was during this second year that he attended the lectures of that distinguished extra-mural teacher. But when he matriculates for the second term, at the beginning of session 1793–94, he is entered for the classes of anatomy and surgery under the second Monro, practice of medicine under James Gregory, and botany under Daniel Rutherford, besides the clinical prelections in the Royal Infirmary. With so much to do in his second session, and so little in the first within the University, it seems to me more probable that he had put himself under Bell's tuition during his first session here.

Our librarian has shown me the library day-book of the time, from which it appears that throughout he had been greatly interested in the study of chemistry. On February 25, 1793, he had our Hopson's Chemistry; on March 11th, Hoffman's Practice of Medicine; March 25th, Chaptal's Chemistry; April 8th, volume ii of the same work; and, on April 27th, Hamilton on Female Complaints. During the summer he had ceased to borrow from the library, and he may then have been making the excursions through Scotland described by Gross, in company with two of his compatriots, one of whom had been his fellow apprentice with Dr. Humphreys, of Staunton, and who enrolled himself in the same two sessions with McDowell as Sam Brown.

On September 25th, a friend, James Cairns, a matriculate of 1793-94, gets Fourcroy's Chemistry for him. On October 3d he is at the library himself for Savary's Letters on Egypt. On October 15th he gets a volume of Chemical Theses and two volumes of Medical Commentaries, and the last entry is on October 29, 1793, when his friend Cairns gets for him Cullen's Practice of Physic.

Among the readers who must have rubbed shoulders with him at the librarian's table were Henry Brougham and Francis Horner; among the students who sat in the same classes with him were Monro Tertius, (Sir) William Newbigging, and John Bell's younger brother (Sir) Charles.

Members of the Athletic Club will be pleased to hear, from Dr. Gross, that he used often to narrate with special glee how, during his sojourn in Edinburgh, "a celebrated Irish foot-racer arrived, boasting that he could out-run, out-hop, and out-jump any man in the city, and bantering the whole medical class. McDowell was selected as their champion. The distance was sixty yards, and the stake ten guineas; the trial took place in the college grounds, and the American allowed himself purposely to be the loser. A second race, for one hundred guineas, and at an increased distance, came off soon afterward, and this time the Irishman, after much bullying, was badly beaten, much to his own chagrin and the gratification of the students." That by way of parenthesis to help you to know the man.

Gross is uncertain as to whether he graduated here or not. But clearly he had not taken out the requisite courses to qualify, and his name is not to be found on our roll of graduates. Doubtless his biographer is correct in thinking that the teacher from whom he learned the most was John Bell, "whose enthusiasm and ardor," says Gross, "were absolutely boundless. It is difficult to conceive at this distant day the charm which this great teacher infused into his subject, and the ambition which he inspired in his pupils. All loved him; many worshipped him; not a few idiolized him. Among the latter was the subject of this memoir. During his attendance upon his prelections the young American was enraptured by the eloquence of his teacher; and the lessons which he imbibed, while thus occupied, were not lost upon him after his return to his native country. Mr. Bell is said to have dwelt with peculiar force and pathos upon the organic diseases of the ovaries, speaking of their hopeless character, when left to themselves, and of the possibility, nay practicability, of removing them by operation. The instruction thus given made a powerful impression upon Dr. McDowell, which was not lost upon him after he took leave of the academic groves of Edinburgh."

What actual success McDowell on the whole achieved is not accurately known. It is said that he operated thirteen times in all, with eight recoveries. It would seem, therefore, that he was not so happy in his later series of cases as he had been in his earlier. But it was a splendid triumph then to have rescued eight women from inevitable death, and whatever premonitions of it there may have been beforehand, America has the right to claim for Ephraim McDowell the foremost place among ovariotomists. As Professor Parvin has said, "The suggestions of Hunter and the instructions of Bell had an important influence upon McDowell's mind, but this detracts nothing from the glory of his achievement. The fame of Columbus is not dimmed by the fact that others before him, others in his time, believed with him that by sailing westward a sea-way to the Indies would be found. No matter what surgeons may have believed and suggested as to removal of diseased ovaries, no matter though John Bell taught the mode of operating, their faith without works was utterly dead, and the new Columbus started on his exploration without pilot or chart."

The next American to whom gynecology owes an outstanding advance was Hugh L. Hodge, of Philadelphia, who introduced into practice the vulcanite vaginal pessary which still bears his name. It may seem to you at the first moment a great descent to pass from the amazing achievements of McDowell and the laparotomists to the use of this simple instrument. But reflect another moment. Many as are the lives that have been prolonged through ovariotomy, the cases that require it in any year are not so numerous but that they are almost all written out in hospital records and usually published in the medical journals. The number of women, on the other hand, who are suffering life-long discomforts from uterine displacements no one thinks of counting. They are waiting, many of them, in ill doctored districts, for the advent of some young practitioner who will no longer aggravate their suffering by the sickening reply, "It is not a deadly complaint ma'am; you must just bear it," but who will set himself to give relief by appropriate means. A few of the men who have gone from this class have made themselves a name for their success in abdominal section. Many of them who have made their way up to good positions in general practice have told me they made their earliest successes through relieving patients of uterine distress by the correct adjustment of a Hodge's pessary.

Hodge began to practice in Philadelphia in 1818, succeeded Dewees as Professor of Obstetrics in the University of Pennsylvania in 1833, and died after an incumbency of forty years. Though it was not till 1860 that he published the philosophical work that fully explained his views on the displacements of the uterus and their treatment, he had been engaged on the subject for thirty years before. He made trial of many varieties of material before he fell upon the hard rubber which combined the qualities of adaptability, lightness, solidity, and cleanliness, so as to be capable of being worn for lengthened periods; and he had given the instrument many changes in its form before he succeeded in shaping it into the lever pessary. He once gave to a friend this account of the consummation of the discovery: "He had been contemplating for a long time the subject of new shapes for pessaries, and, after many experiments, had found nothing satisfactory. One evening, while sitting alone in the room where the meetings of the Medical Faculty of the University were held, his eyes rested upon the upright steel support by the fireplace, designed to hold the shovel and tongs. The shovel and tongs were kept in position by a steel hook; and, as he surveyed the supporting curve of this hook, the longed-for illumination came. The shape, apparently so paradoxical, revealed itself in the glowing light and flickering flame of the burning grate, and the Hodge lever pessary was the result." "A sudden effort of genius, was it?" asks Gaillard Thomas. "No; this was the moment at which the detached thoughts, long and carefully stored away in the inventor's mind, combined to form a harmonious whole. The steel hook did for his mind what the swinging church lamp did for that of Galileo in suggesting the pendulum."

I do not wish you to suppose that without Hodge such vaginal pessaries as are now in constant use under his name would never have been contrived. Years before his instrument was known here, for example, my predecessor had used and taught many to use a gutta-percha pessary of horse-collar shape, that may have suggested to the late Albert Smith the modification which he imprinted on the vulcanite pessary, and which has largely superseded the use of the original so-called "lever" pessary. Still, in form and material and extent of applicability, it was a great advance on all pre-existing varieties of vaginal pessary, and many a barren woman has been made a happy mother, and many a suffering one has been relieved of long distress, by the introduction of this most useful instrument.

Seven years ago some of your predecessors had the good fortune to meet Dr. Marion Sims, when he told them in genial fashion, in the drawing-room after dinner, some incidents in his early career which I can not resist the temptation of repeating now to you. "I had graduated at Jefferson Medical College after two years of theoretical study, as was common with us at that time. You'll be surprised when I tell you that I had only had theoretical training; but in reality I had received no clinical instruction, had been called to walk no hospital wards, and had never seen a person die. I had learned something of anatomy, and enough of surgery to be able to tie the innominate artery or to cut down upon any nerve in the body; but as to medicine I had never been told how to distinguish a colic from a labor pain. The best openings for practice were at that time in the West; but I was very well satisfied with my acquirements, and thought I would do quite well if I started in my own native town. It was but a little place, and I settled in a house at one end of it. I remember well the sign-plate I got put upon the door. It was made of shining white metal, and of striking dimensions, for it was between two and three feet long, with 'Dr. J. Marion Sims' on it in huge letters; and as I walked up the street I liked to see it glancing in the sunset. It didn't seem, however, to make much impression on the community. I had waited there for a fortnight, wondering when the practice was to begin. One morning I was reading at my window when the leading man in the town came along. He was a master tailor by trade, but he was the big man in the place, a sort of mayor. When he came to the window he stopped and called up, 'Well, Marion (no one thought of calling me Doctor, for they had all known me there as a boy), 'Well, Marion,' said he, 'have you got ever a call yet?' 'No,' said I, 'not yet.' 'Will you step along and see my baby? It's got summer diarrhea, and seems rather badly.'

"I can't tell how big I felt. I never expected to begin my practice in the mayor's family. I had imagined that I should have to begin with working among the free niggers, who were often enough ill, but who could never pay a doctor, and here my first call came from the greatest man we had—the man, in fact, who *ran* the village. I felt as if I had grown to twice my size, thought of ordering a new suit of clothes immediately, and fancied that my fortune was made. I went along and found the baby, which was in the midst of its teething, very ill with diarrhea. I did not remember having heard any thing about this summer diarrhea at college, but of course I looked wise, felt the baby's pulse, examined its dejections, and cut its gums in two places. Then they asked me, 'What was I going to give the child?' That was a puzzler. I said, 'Oh, I'll make up some medicine at home. It'll take some time to get ready, so you can send Jinny along for it in an hour.' This Jinny was a sharp little nigger girl, one of those little mischiefs who can run an errand ever so fast when they are not wanted to. And I tell you I went home as quickly as ever I could, to get plenty of time at my books. Luckily for me we had no druggist, or apothecary, or pharmacist to send prescriptions to, for I don't think I could have written one to save my life. Well, I got home to my books. I hadn't a large library; just a few books on a shelf. There was Dewees's Midwifery, Eberlé's Practice of Medicine, and two or three others. I took down Eberlé and looked him up on the summer diarrhea of children. There were about a dozen pages, with one prescription, and sometimes two, on every page, for Eberlé was great on prescriptions, and sometimes gave a whole string of them. I read seven or eight pages, but didn't seem to know any better what to do with the mayor's baby. However, it was necessary to do something, so I took his first prescription—I don't remember what it was now—and by the time Jinny came along I had made up some powders. These I gave her, along with a note to her mistress with instructions to give one to the infant every two hours in a little syrup. I went along in the evening again to see the child, and was told the powders hadn't done it any good. I went home and made up the next prescription. This was the only patient I had, and I kept going three or four times a day to see it, and sometimes stayed all night. But it was always the same thing, 'The medicine is not doing it any good.' I turned a page of Eberlé on that infant every day, but it steadily grew worse. Still I never dreamt but that it would get well. I couldn't imagine it possible that my first patient could die. I was doing my best for the child, and watching it very closely, along with the old black woman who nursed it. I fancy old nurses and young doctors don't get on very well at any time. The old nurses think the young doctors don't know their business too well, and the young doctors feel that the nurses look down on them. But to make a long story short, I was standing at one side of the bed and the old nurse at the other, when she looked across at me and said, 'Doctor, don't you think that child 's a-goin' to die?' I felt quite indignant, and said, 'No, I don't.' I looked again at the child, felt its pulse, and insisted that it would come all right. She said nothing. In a little while the breathing became slower, there was a kind of convulsive movement, and the infant became alarmingly still. I whipped it out from under the bed-clothes, blew into the lungs, jerked it from side to side, and tried hard the ready methods of resuscitation. The old nurse came around to my side of the bed, and I think I feel her hand on my shoulder yet, as she said, 'Doctor, it's no use blowin' and a shakin' at that child. That child 's dead.' I never was so astounded in my life. I went to the funeral, and went home more disheartened than I can express at having lost my very first patient.

"I hadn't got over my disappointment when, about a fortnight after, the foreman of the establishment came to me, and said, 'Marion, have you got any new calls since the mayor's baby died?' 'No,' said I. 'I wish you would come and see what you can do for my baby; it's got summer diarrhea.'

"I did not feel so proud as I did of my first call, but went and found the child very ill indeed. Still I did not know what to do, and was obliged to go back to Eberlé and make up his prescriptions as before. Only this time I began with the last prescription, and turned the pages backward. The child was getting worse and worse, when, to my great relief, Dr. Jones, the village doctor, who had been away on a holiday, came home. He was a most excellent doctor, and I went and told him how the mayor's baby had died, and asked him to come with me and see the foreman's child He kindly came, and like a wise man said very little when we were in the house; but when we got outside, and walked around to the back of the house, he said, 'I think this baby's going to die too.' 'No,' said I, 'it's impossible that two babies should die.' But die it did.

"I have never in all my life felt so cast down as I did just then. If I had had a thousand dollars I would have given up medicine for ever, and gone into some other business. But I was a poor man, and my father had spent all he could spare in educating me. When the second child died I went home to my little office, took down the big plate with Dr. J. Marion Sims on it, carried it into the back garden, and cast it into a well that was there, a hundred feet deep. If the well is still there, then that plate is at the bottom of it to this day.

"I managed to go back to Philadelphia, and worked hard at my profession. I would have you remember that nothing but hard work will enable a man to get on. It's not always the man of most talent and genius, but the hard-worker that gets on best.

"The story I have told you is true, every word of it; and if I hadn't met with the double disaster at the outset, I might never to this day have known how ignorant I was, and how needful it is to work hard to learn how to practice.''

The man who talked thus modestly and kindly to his juniors was at that hour the greatest of living gynecologists; but, as you gather from what he said, he did not set out in his medical career with the intention of devoting himself to any specialty. After he had added to his training another year of college study he became a country practitioner in Montgomery, Alabama. There, by his enthusiastic interest in his work and his successful management of some difficult cases, he was making his way into a good practice, when he was called early in 1845 to assist in a case of tedious labor in a slave woman, where the head of the child had been lodged in the pelvis for three days. He readily effected the delivery with forceps, and the patient was recovering well till on the fifth day of puerperium, when a slough fell out, and she became the subject of a recto- and vesico-vaginal fistula. The woman's master asked Dr. Sims to try and cure her. He went home and consulted all the authorities on the subject, as he had never met a case before, and finding that it was by all described as an incurable complaint, he refused to interfere. Within two months two other cases of vesico-vaginal fistula came under his observation. The women were all slaves, rendered useless by their infirmity. Their masters were eager to have them cured. Sims was touched with the helplessness of their condition. He had all three put into a hospital he had opened not long before, and began to try and close the fistulæ. He was baffled, like all who had previously made the attempt, by the initial difficulty of getting access to the opening in the vaginal cavity.

Just then, as he tells us in his Notes on Clinical Surgery, he had to treat a lady who was suffering from retroversion of the uterus. To reduce it he had placed her in the knee-elbow position, and first with one finger and then with two in the vagina tried to replace it. While manipulating in various directions he suddenly lost touch of the uterus and vaginal walls. The fingers were embraced at the vaginal orifice, but as they were turned round within the cavity it seemed to have become expanded, and he felt as if he could barely touch the sides of the pelvis. The lady declared herself relieved. He did not understand what had happened, but as she was heavy, he allowed her to lie down on her side, and noticed as she lay, or rather fell down, an escape of air took place from the vagina. He recognized that in the peculiar posture in which the patient had been placed, the tendency of the vaginal roof had been to gravitate toward the abdomen, and as he had opened up the vaginal orifice the air had rushed in to distend its cavity. His mind grasped at the phenomenon. He went at once to test whether it could be repeated on his poor fistulous slave women. On the way he possessed himself of a pewter spoon, the handle of which he bent so as to form a proto-speculum, with which he could hook back the perineum. Placing one of the women in the required position, he found that the fistulous aperture was exposed to view, and that he had taken the first necessary step in the progress to the cure of a heretofore incurable disease.

There was still much to be done before the result was achieved. Sims had to contrive many instruments and meet with many failures. One brave woman had to be on the operating table thirty times and more before she was fully cured. But the man who had conquered the first and greatest obstacle to success was not to be baffled on his way to final victory. I remember well the delight with which my predecessor read the pamphlet in which Sims published his results in 1852, and the welcome with which he received his coadjutor Nathan Bozeman when he came some years subsequently and demonstrated the technique of the operation.

Here, again, I may remark that the duck-bill speculum of Sims has been subjected to many modifications; and vesico-vaginal fistulæ have been cured often enough now by procedures different from that which he so patiently elaborated. But as regards the malady, his name must ever stand highest among the names of those who removed from surgery the reproach of its incurability. And in the history of gynecology it will through all time be recorded that the introduction into practice of the Sims' speculum gave a mighty impulse to the recognition and the treatment, not merely of vesico-vaginal fistulæ, but of many other pelvic maladies. So that, as one of his countrymen writes (Dr. Gross in his recently published Autobiography): ''When the history of American medicine shall be written, one of its brightest pages will be an account of the services of Dr. Sims, a name as enduring as the hills and valleys of South Carolina, his native State."

There were other gynecological advances that I had noted down to the credit of our American fellow-workers. Such are the epoch-making work of Noeggerath on latent gonorrhea; the knowledge of the diagnosis and treatment of cervical lacerations, which we owe to Dr. Emmet; the superinduction of the menopause by removal of the ovaries, by Dr.

Battey, etc. But the hour is near an end. There is no time left even to enumerate their original work in the department of obstetrics.

I only add one sentence from the second volume of Sir James Y. Simpson's works, that containing his papers on Anesthesia, and edited by his son: "On September 30, 1844, Dr. Morton, of Boston, extracted a tooth without any pain while the patient was breathing sulphuric ether, this fact and discovery of itself making a NEW ERA in anesthetics and in surgery."

Had there been time for closer scrutiny of the splendid record, it would only have become more clear to us that "that Young Eagle of the West," whom "unprophetic rulers" "drove from out the mother's nest . . . to forage for herself alone," has foraged in the fields of gynecology and midwifery with magnificent results, and that not for herself, but so as to make all the world her debtors.

I have not told you these things, gentlemen, merely to glorify American gynecology, but that you may, on entering the class, at once learn these two lessons: first, that the subjects you have to study here deserve and demand your closest application; and, secondly, that the men who have made for themselves in these departments an imperishable name have done so not as the result of some happy chance, but as the reward of earnest toil. And I will ask you to remember throughout the session the advice which Pasteur addressed to my son when, at the time of the Copenhagen Congress, I had called to see him. In the course of our conversation he had interested himself in the boy's schooling, and, when we parted, he put his hand upon his head and said, "*Travaillez, mon ami; travaillez.*"—*British Medical Journal.*

THE TREATMENT OF CHLOROSIS.—Professor H. Nothnagel writes, in the Medical Press and Circular:

In general it is proper to commence treatment early and energetically in a case of chlorosis, for the reason that later a series of *sequelæ* may develop neurasthenic conditions, nervousness, hysterical changes, etc. Another affection that is often met with in chlorotic individuals is the circular ulcer of the stomach, concerning which we know that it develops more readily in chlorotic people than in those who are healthy. What are the indications in the treatment of chlorosis? The *indicatio causalis* we can not generally satisfy, for the reason that we do not know the cause except a hypoplasia, a faulty development of certain organs and tissues that is met with in chlorotic individuals, as Virchow by a continued series of observations determined. This hypoplasia affects above all the aorta; in general the whole arterial system is strikingly contracted; it does not correspond to the sectional area met with in healthy individuals; secondly, there is usually met with in these cases a hypoplasia of the sexual apparatus, the uterus remains infantile for an unusual length of time, it happens that individuals who have suffered in youth from excessive chlorosis do not conceive later on. We find them subjects of infantile uterus, that is, a different relation of cervix to corpus than is met with in grown up and well-developed individuals; the cervix is very long, and the body strikingly undeveloped; this infantile form persists beyond childhood into the period of ripe age. These two changes, hypoplasia of the aorta and of the vessels and of the sexual apparatus are met with very often in chlorosis. They must be looked upon as anomalies of development, and in many cases we fail to cure the chlorosis, on account of the organic tissue changes that it is not in our power to alter. We can not remove the hypoplasia. Now comes the question: Can we satisfy the *indicatio morbi?* To this we must answer, Yes. In those cases in which the essential element, the central point from which the various phenomena radiate, is the olegochroanemia, that is, the deficiency of iron. And in spite of all the attacks against it, the old, old treatment of chlorosis by iron has in the present day not only had its justification, but it is an actual necessity. In the treatment of these patients iron stands in the front rank as a remedy, one of the most valuable parts of our *armamentarium*; one which, after lapse of centuries, has remained as only a few others have, such as opium, quinine, etc. You know that we require a certain quantity of iron for the maintenance of the organism. You know, however, on the other hand, that this quantity is only a minimum, that our requirement of iron is satisfied by the small quantities that are contained in the daily supply of the most varied food. Iron is contained in eggs, in meat, in various vegetables; for example, it is said, in spinach. By this daily supply of iron that we consume we satisfy our requirements. I would now point out the following: You know that recovery takes place in very many cases of chlorosis without one giving any special preparations of iron; recovery takes place when we regulate the appetite. Such patients often suffer from dyspepsia, which was formerly designated as atonic, torpid, feeble digestion. It is really want of hydrochloric acid that causes this dyspepsia with the symptoms of bad digestion, fullness after eating, etc. We see how such people frequently get a good appetite when we give them hydrochloric acids, or without the acid when placed under suitable climatic relations. When you send chlorotic patients away in winter to a place where they can be the whole day in fresh air, in summer to the mountains, to where the air is good, and to the seaside, they often return completely changed. It is especially the seaside that acts so surprisingly well and that exercises such a wonderful influence on these cases. They get a remarkably good appetite, they now take up from the food the requisite quantity of iron, and they return from the coast ruddy and fresh, and capable of bodily and mental labor. . . . But when you send such patients away you must give them rules. They are often very chilly, they get cold on the least occasion, even in summer. As soon as it gets cool in the evening they must be well wrapped up, as they only produce a small modicum of body heat, from deficient consumption of oxygen. For the first ten or fourteen days at the seaside you should not let such patients bathe. They should simply remain there, promenading, keep in the sea air, but not bathe. Where patients are to be permitted to bathe they should not be sent to too cold or to too exposed a locality. At first—in medium and slight cases it does not so much matter—they should only remain in the water at most a minute. They should just go into the water and immediately come out.

I think it justifiable not absolutely to prohibit acids to which, for example, they have a strong inclination. Another point I would allude to on the occasion is the following: Among the public, and occasionally among medical men, there is an impression that those patients to whom beer and wine are naturally allowed should drink red wine, because red wine makes more blood than other kinds. I need not tell you that this view has no sense in it. You know that the red color in wine is due to coloring material. It is therefore a matter of indifference whether you allow them white or red wine so long as it is good.

By these means we succeed in the milder cases. When the case is more severe we use the medicament of iron. As regards the quantity of iron to be given to such cases, I have already indicated that it is very small. It is quite sufficient if you give such patients 0.05 grm. daily, 0.1 is over and over enough. As regards the particular preparation, we possess a legion of them. It is incredible how many officinal and unofficinal preparations we have. You can divide the ferruginous preparations into four groups, first into a group in which we require the simple action of the iron only; to the second group belong those preparations in which the iron or its combinations as such exert some special effect; then we have preparations to which a special stimulant action is ascribed, and finally the compound preparations. I will first of all mention the latter, as I like them the least. These are, for instance, iodide of iron, syr. ferr. iod., etc. These are useful in only a few cases. To the preparations which from their combinations have a special action belongs the sulphate, which, as you know, is a distinguished deodorant, and was at one time believed to be a disinfectant. Another of these preparations is the sesquichloride, which on direct application to bleeding surfaces acts as a hemostatic. . . . For internal use, independent of the compound preparations, all the ferruginous preparations are much on a par, as they only give the iron action. You can thus give any of the ferruginous preparations you please; you act rather according to the digestive capabilities of your patients, and here I would remind you that certain idiosyncrasies seem to exist. There are people who can not bear tinct. ferr. acet. or tinct. ferr. pomat., but who can bear ferrum lacticum or ferrum reductum. You must give the iron half to one hour after meals, on a full stomach, when the acid secretion is strong. In whatever form you give the iron it will be absorbed as a hydrochlorate or albuminate.

There has lately been such stress laid upon the administration of arsenic in chlorosis, I would decisively protest against its misuse. A number of years ago arsenic was set up by a French author as a panacea against all the ills that flesh is heir to. Above all arsenic was put forward as the first and best tonic; there was nothing better. I certainly prescribed a good deal of arsenic. I think very highly of it; that it is, however, a tonic *par excellence* must first be proved. I would then particularly protest against your ordering arsenic for chlorosis. I have never satisfied myself that it did any good in that condition. I would also protest much more against the employment of arsenic in dyspepsia. Dyspepsia is most decidedly a contra-indication for the administration of arsenic, and nowadays we prescribe arsenic for dyspepsia! I have only to touch upon one more point, that is the much-lauded steel baths. So much importance is sometimes laid upon steel baths that patients are required to take them at home. These baths are good, not because they contain iron, but because they are baths. That steel baths do good can not be denied. They do not do good, however, on account of the iron they contain. In the natural ferruginous baths a number of other ingredients are contained, various earth acids, stimulating substances that act upon the skin, as chloride of sodium, and other salts, etc. The effects of the baths are caused by these, and not by the iron. As has been shown by numerous experiments, iron is not absorbed by the skin in the bath, except possibly a minute trace by the mucous membrane of the vagina, and even this is still very doubtful. It is pretty much as if a cannon-ball was put into the water along with the patient. I beg of you not to misunderstand me. I do not contend against the usefulness of baths, even of ferruginous baths, but I attribute their usefulness not to the iron as such, but to the other things, the other factors that are active, the salts, the acids, the water, the temperature, etc. One remark in conclusion: There are a number of cases in which, notwithstanding ferruginous as well as other treatment, the aim of curing the chlorosis has been missed. Some years ago it was recommended by a Belgian author that we should treat chlorosis by preparations of manganese. This method has made no headway, for the plain reason that it was of no use It has now fallen into desuetude, and I only mention it for the sake of its historic interest. Quite recently another thought has been given expression to by Schulz and Strübing, of Greifswald, supported by very interesting experiments. There are cases of chlorosis that can not be cured by any ferruginous treatment; it is possible that another indispensable and important constituent protoplasm, sulphur, is not present in sufficient quantity in many of these cases. Physicians have begun to treat some cases of chlorosis that were formerly treated unsuccessfully by iron and other preparations, by sulphur, and it has been thought that benefit had resulted from it. The patients are said to have acquired after a few weeks a better color, a better appetite, and that then the ordinary ferruginous treatment that was before useless has at last proved successful; one can therefore open up and prepare the way for the successful treatment of chlorosis by the administration of sulphur. I can not at present pronounce any judgment upon this procedure. I have since then ordered sulphur in a large number of cases, but only a short time has since elapsed, so that I can not say from my own experience whether the recommendation is well founded or not. If you would give sulphur in such cases order small doses of sulphur depuratum. You should order flor. sulphuris, 10.0; sacch. lactis, 20.0, *d. s.*; as much as will lie on the point of a knife, to be taken once or twice a day after meals. That quantity is quite sufficient to meet the requirements of the organism as regards sulphur.

NITRITE OF AMYL IN CHOLERA.—Theobald A. Palm, M. A., M. D., says (British Medical Journal): During an epidemic of cholera in Japan in 1879 it occurred to me to make trial of the inhalation of nitrite of amyl in the treatment of the collapse of cholera. I did so upon the consideration that this drug appears to have an antagonistic action to the cholera poison in its effect upon the vaso motor nerves. The latter causes a dilatation and congestion of the vessels of the viscera, and a corresponding contraction of the more superficial vessels; while we have in nitrite of amyl an agent which, whatever its effects may be upon the visceral circulation, produces a marked dilatation of the superficial vessels, and must therefore, to a corresponding degree, relieve the congestion of the visceral circulation. I found that cholera patients in a state of collapse could inhale it very freely before an effect was produced. My plan was to hold a bottle of it under the nostrils, directing the patient to sniff it up freely, and to repeat this frequently. Under its influence a small, thready pulse increased in volume, and when the pulse at the wrist was imperceptible it became perceptible. I have reason to think that in some cases it was the means of saving life. I regret that, owing to the accidental destruction of my notes taken at the time, I can give no exact account of the number or details of cases in which it was made use of, but this hint may be of use to others who will have more opportunity than myself of further testing its value.

REST AND EXERCISE AS THERAPEUTIC AGENTS.—We have reached an epoch when drugging, as such, has fallen into disrepute. When called upon to deal with a case of disease, the practitioner no longer regards the administration of medicines as his chief duty; nor does he expect, except in a very limited number of cases, that the Pharmacopeia will yield him any medicament which can be fairly described as a specific remedy for the disease before him. While according drugs their due value for their power to control symptoms and to help the patient over the crisis of his malady, the physician is more and more disposed to rely for cure upon the removal of causes which promote disease, and the regulation of food, exercise, and general habits of life In this connection one problem often presses itself strongly upon his attention, namely, shall the affected organ be permitted to rest, or shall it be stimulated to increased activity?

The difficulty of finding a clear rule of practice arises mainly in connection with chronic cases. In the case of an organ which is the seat of acute inflammation, we can have no hesitation in advising that it shall have as complete rest as the needs of the economy will permit. The inflamed joint, the inflamed eye, the inflamed stomach, and the inflamed kidney must be allowed to rest, entirely, if possible, and if that be impracticable, their functional activity must be reduced by all the means at our command. But when the acute symptoms have subsided, and the subacute is passing into the chronic condition, difficulties may at once arise.

Take, for example, the first case that we have instanced, namely, an inflamed joint. Rest is the first essential, but if the rest be too long continued mischief results, and the failures of the surgeon in this matter often become the material for the triumphs of the bone-setter and the "miraculous cures" of the itinerant quack. Few reflections can be more mortifying to the surgeon than the thought that, by undue timidity and too prolonged adherence to a line of treatment which at the outset was perfectly correct, he has injured his patient and brought discredit both upon himself and his profession. Such errors would be less frequent if the practitioners were constantly on the alert to give rest and exercise their due place as therapeutic agents.

A similar error is common in the treatment of gastric derangements. The practitioner begins, rightly enough, by checking undue indulgence and prohibiting the use of all injurious articles of food. Too often, however, he contents himself with mere prohibition, and forgets to suggest suitable substitutes for the dietary which he interdicts. The patient becomes infected with the same Spartan zeal, and voluntarily adds to the strictness of his adviser's injunctions. Not very rarely the end is worse than the beginning. Instead, it may be, of a little functional dyspepsia, which, however disagreeable, is a very innocent malady, the patient, by his process of modified starvation, lowers his constitutional tone and invites some serious organic affection. The practitioner began, no doubt, with the very sound principle of giving a disordered organ rest, but he forgot the wise aphorism, *Ne quid nimis.*

For generations the main idea in the treatment of organic heart disease has been physical rest to diminish the labor of the damaged organ. We have been in the habit of prohibiting all forms of active labor to the sufferers from cardiac disease, and the principle of our treatment has been the unexpressed but ever present idea, accepted as a self-evident axiom, that perfect rest was the best means of securing muscular compensation. Professor Oertel's experiments and results have come with startling surprise upon those who forgot to distinguish between a useful principle and the exceptions which the multiformity of disease renders it imperative to recognize. As is well known, he treats a considerable proportion of cases of organic heart disease by regulated exercise, especially graduated ascents of mountains, and his results place the value of his method beyond reasonable dispute. There is nothing really surprising either in his treatment or the success which has attended it. A little reflection will suffice to convince us that, while rest is often useful and indeed quite indispensable in heart disease, there are yet many cases in which well-regulated exercise will improve the nutrition of the cardiac muscle, as of the rest of the muscular system, and hence tend to the promotion of circulatory vigor.

Nervous affections, again, afford many instances in which rest and exercise will call for very discriminating regulation. When the practitioner gets a case of brain-worry and brain-fag from overwork or undue excitement, he is apt, as a mere matter of routine, to order the patient off to the seaside or to the mountains, and to tell him to take complete rest, and dawdle away his time as best he may. This plan sometimes succeeds, but the cases are not rare in which it fails utterly. The busy brain sometimes refuses to rest, and, the usual channels of activity being closed, its energies flow out in novel and abnormal directions. Ill-temper, insomnia, *ennui*, appear perhaps for the first time, and the treatment by rest is a complete failure. In such cases the indication is not abstinence from work but a change of mental occupation, which may be attained by travel, by the sedulous cultivation of some hobby, or perhaps by serious intellectual labor in some unaccustomed groove.

We are far from seeking to disparage the immense advantage of rest when wisely regulated and duly limited. But "rest in the recumbent position" is not the essence of all surgery, nor are a warm bed and a quiet room the sum and substance of the last will and testament of a moribund science of medicine. *British Medical Journal.*

Bismuth in Inflammatory Affections of the Intestinal Mucous Tract.—A. C. Gaviller, M. D., Grand Valley, Ont., writes in the Canada Lancet as follows: In a case of acute dysentery which came under my care lately, I gave bismuth tris nitrate and opium as the medicinal treatment, in doses of fifteen grains of the former to one grain of the latter, every two or three hours. The symptoms became no worse but did not improve, so I doubled the dose of bismuth and continued the opium as before. The pain speedily became worse and finally agonizing after about twenty-four hours' treatment with the increased dose of bismuth. The evacuations became excessively frequent and of a garlic-like smell, while the same odor was readily perceptible in the breath. Thinking the bismuth might be impure and contain arsenic, I changed the treatment to plumbi acetat. grs. ij, opium, gr. j, every two hours, with rapid improvment in pain, speedy fall of the temperature, which had been rising rapidly, and a rapidly lengthening interval between the stools, which, with the breath, soon lost their garlic-like odor.

In twenty-four hours the motions had diminished to one in six to twelve hours, and the pain almost disappeared as long as the medicine was continued. I then gave pulv. kino co., grs. xx, every two to three hours, and continued it with lengthening intervals until convalescent. I now wrote to Messrs. Lyman Bros., of Toronto, from whom I had procured the sample of bismuth which I had been using, and stated my suspicions as to its purity, and the symptoms of irritant poisoning produced by it. They promptly submitted some of the bismuth from which mine was taken to Prof. Hays for analysis, who found no arsenic; the only impurities it contained being traces of iron and lime. I may state that the bismuth was of Howard's manufacture, a name which is considered a guarantee for purity. Nor could the bismuth have become contaminated with arsenic after I received it from Toronto, as I kept it in a bottle which had contained only bismuth for years. This case is instructive, as it shows:

1. That the bismuth may become soluble in the intestinal canal, probably through chemical combination with the sulphureted hydogen so commonly found as a result of the decay of albuminous foods or dysenteric stools, which usually contain more or less (in bad cases considerable) albuminous material; through chemical change a sulphur and a hydrogen compound are formed, the former giving the dark color so often observed in the stools of patients taking bismuth, and the hydrogen giving the garlic-like odor to the stools, and, by absorption into the circulation and inhalation by the lungs, to the breath also.

2. That bismuth, when so changed, acts as an irritant to the mucous lining of the intestines.

In these points a similarity to arsenic is shown, a similarity at which we need not be surprised when we view the close chemical relationship existing between the two metals.

The practical point that I would adduce is this: Use bismuth with caution in active inflammatory affections of the intestinal tract, where rapid chemical and fermentative change is going on, as where the changes which render the bismuth poisonous are most readily effected.

SURGICAL TUBERCULOSIS.—In an article on this subject Professor R. Volkmann gives a masterly review of surgical tuberculosis, beginning with

1. *Tuberculosis of the Skin and Connective Tissue.* Lupus is a genuine tuberculosis of the skin, though it is to be considered a special form of tuberculosis which attacks by preference persons who are slightly or not at all hereditarily infected. Clinically it is characterized by its great tendency to local relapse, in contradistinction to other tuberculous affections of the skin. Between the latter and lupus there are intermediate forms, and the prognosis of these as compared with lupus is more favorable as to local permanent cure, but worse as to later appearance of tuberculous processes in other localities, tissues, and organs.

2. *Tuberculous Ulcerations of the Skin*, to be distinguished from lupus, answer mostly to scrofulous ulcerations of older authors. They are most frequently found in children and young persons, but are not very common if we except those cases in which they develop secondarily from tuberculous gland abscesses and tuberculous joint and bone fistulas. They are almost without exception permanently cured by surgical interference without local relapse.

3. *Primary Tuberculosis* and its *primary* tuberculous abscesses of the deeper, especially *intermuscular*, *parossal* and *para-articular connective-tissue* layers, are very rare, and must be diagnosticated with the greatest reservation. In the great majority of cases these abscesses are connected with specific bone, joint or gland affections, these forming the primary disease. The present treatment of these abscesses by free incision and scraping out generally shows this relation plainly. When it can not be demonstrated on the operating table, it must not be forgotten that, particularly in the bone, the tuberculous foci, from which those apparently primary cellular tissue tuberculoses and para articular abscesses arise, are often exceedingly small, and may be easily overlooked; and, further, that the abscesses not infrequently appear so late that meanwhile the original bone affection is already healed.

This holds particularly good for the congestion abscesses of spondylitis (tuberculous caries of the vertebral column). In favorable cases these abscesses may heal by a kind of primary union and without relapse after free incision, washing out with antiseptics, drainage and compression for a few days. Out of fifty seven freely opened congestion abscesses in spondylitis with gibbous formation during the last few years, twenty-three healed by first intention, the drains being removed after a few days. This shows that the abscess was not longer supplied with pus and products of disintegration of tuberculous tissue from the bone.

4. As a *primary affection* tuberculosis of the connective tissue is found chiefly in the panniculous adiposus of small children. There develop at once, or in rapid succession, a number of small flat knots under the skin (*gommes tuberculeuses*), which soon melt and become soft, in a short time generally invading the skin over the area of the affection, so that the skin becomes bluish red, fluctuation becomes more distinct, and finally the abscess breaks. For a number of years I have in my lectures called this the *furunculous form of tuberculosis of the skin and connective tissue.* These abscesses heal rapidly without relapse when incised early and emptied of pus, fungous granulations adhering to the wall, and large plugs of caseated and necrotic connective tissue. Sometimes, however, the process in some of the knots goes deeper instead of invading the skin, and large tuberculous abscesses form under the true skin. In such a case we have to deal with a form of tuberculous cellular-tissue abscess that is neither related to diseased bones, joints, and tendon-sheaths nor to affections of the lymphatic glands.

5. *Tuberculous abscesses,* if they have existed for some time, whether they be primary tuberculous affections of the connective tissue, or connected with joint or bone disease, are always lined with a characteristic violet-gray, or yellow-gray, opaque membrane. This membrane, which is sometimes several millimeters thick, is only sparingly supplied with blood-vessels, especially in the inner layers, which are constantly bathed in tuberculous pus, and contain an enormous number of miliary tubercles, by which it sometimes has the appearance of only consisting of these. This abscess membrane is very easily loosened and scraped off from the surrounding tissue (basement substance), often in pieces a square inch in size. The tissues forming the basement substance are perfectly healthy, being the seat of a slight reactive induration only. Very rarely are the adjoining tissues invaded by diffuse tuberculous eruptions and cheesy infiltrations. Only twice in more than one thousand cases of such abscesses freely opened and examined during life have I found a diffuse invasion of tuberculosis into the muscular system which formed the wall of these abscesses. When cheesy matter and diffuse cheesy degeneration of the muscular substance itself is encountered, the case is generally one of syphilis and cheesy degenerated gummata. Here the diseased tissues offer the greatest resistance to the sharp spoon, and can not simply be torn away, or, even by considerable force be completely scraped out. The characteristic abscess membrane is wanting. Both the signs mentioned here serve also the diagnosis of actino-mycotic foci invading the muscles and sometimes resembling tuberculous abscesses.

The characteristic abscess membrane is only found in tuberculous abscesses, and is therefore to be considered an absolutely reliable diagnostic sign.

6. The field of the non-tuberculous chronic abscesses and so-called cold abscesses, as they appear during or after infectious diseases, has yet to be defined by new investigations. At any rate it is much narrower than that of the tuberculous abscesses.—*Langenbeck's Archiv.*

DETECTION AND REMOVAL OF EMBEDDED NEEDLES.—Mr. H. Littlewood, of Leeds, has adopted the following plan with success:

1. The part supposed to contain the needle is thoroughly rubbed over with an electro-magnet, so as to magnetize the metal if present.

2. A delicately balanced magnetic needle is held over the part. If the needle is present, its position can be ascertained by the attraction or repulsion of the poles of the magnetic needle.

3. Having ascertained the presence of the needle (for example, in the hand), the part is rendered bloodless, and a grain or more of cocaine injected hypodermically.

4. An incision is made over the ascertained position of the needle.

5. The electro-magnet is then inserted into the wound, and with it the needle is felt for. Sometimes it will be found and removed quite easily, at others great difficulty will be experienced, taking as long as one half or three quarters of an hour. This may be due to the fact that its position has not been accurately ascertained; it may be lying across the incision, or it may be so firmly embedded in the tissues that the electro-magnet is not able to withdraw it. If this occurs the incision must be enlarged, and the edges held apart with some non-magnetic retractors; using the electro-magnet as a guide, the needle may be seen and removed with forceps. If the needle is firmly fixed, the following plan has been adopted: by placing the positive pole of a galvanic battery on the surface of the body, and the negative pole in direct contact with the needle, this becomes loosened by electrolysis, and can then be easily removed by the electro-magnet. This latter method has been found useful in two cases for the removal of sewing-machine needles that had transfixed the end of the finger, and were so firmly fixed as not to be removable by forceps. The electrolytic action loosened the needles so that they could be removed quite easily.

I have now removed six needles from the hand and a piece of steel embedded in the foot. In none of the cases could I feel the piece of metal or be sure of its presence without the aid of the method above described. As it requires some expensive apparatus, and sometimes takes a long time, I am afraid this method will not become general; but it is well worth the time and trouble spent if in the end one is successful, as patients really suffer a good deal of pain and anxiety if these foreign bodies are allowed to remain embedded in the tissues.—*Lancet.*

THE PRESYSTOLIC MURMUR.—When a heart is beating from 80 to 100 or more times a minute, the interval of time between the auricular systole and the ventricular systole forms such a small fraction of a second that several causes may make a murmur coincident with the beginning of the ventricular systole appear presystolic. The carotid pulse is sufficiently delayed to make a murmur accompanying the *commencement* of the ventricular systole appear to precede it, especially in a rapidly acting heart. But when the rhythm is ascertained by the finger applied to the precordia, there is still room for error. In the majority of cases of mitral stenosis, from the time they are first recognized, and in all eventually, the right ventricle becomes dilated and hypertrophied (eccentric hypertrophy). The left ventricle is pushed further and further backward and to the left, and is very little, and in some cases not at all, in contact with the chest wall. The cardiac impulse is diffused, and is chiefly due to the contraction of the *right* ventricle. Is the systole of the two ventricles quite synchronous in mitral stenosis, and, if not, which precedes the other? The great frequence of reduplication of the second sound shows that the systole of the two ventricles can not be absolutely synchronous, though the difference may be so slight that it is not easy, or perhaps possible, to detect it by the ear as a reduplication of the first sound, especially as in the great majority of cases the sounds, which are longer than the second sound, would coincide in a great part of their duration. But I am satisfied that in dilatation of the right side reduplication of the first sound is more common than is often taught. I am aware that in reduplication of the second sound the pulmonary is generally said to precede the aortic, and that this precedence and the accentuation are said to be due to the increased vascular tension in the pulmonary circulation. I am not satisfied that the pulmonary does always precede the aortic second sound in reduplication, and although the increased vascular tension accounts satisfactorily for the accentuation, it can only indirectly make the semilunar valves close earlier or later. Even though the walls of the ventricle by their contraction have not succeeded in emptying the cavity, the contraction must have ceased, and the onward flow of blood ceased before the semilunar valves can close. Therefore the period of closure of the semilunar valves depends primarily on the ventricular systole. In mitral stenosis with dilated and hypertrophied right side, there is some reason to think that when the ventricles are contracting asynchronously, as shown by the reduplicated second sounds, and the prolonged, altered, or reduplicated first sounds, the left ventricular systole terminates before the right. The left ventricle, being, if any thing, underfilled, has no difficulty in expelling its contents. The right, being overfilled with blood at increased tension, in laboring to empty itself, takes rather a longer time to complete the process. In such a case a murmur accompanying the commencement of the left ventricular systole might appear to precede the cardiac impulse, which was due to the latter part of the delayed systole of the right ventricle. This would not apply so much to the early stage of mitral stenosis, when the dilatation of the right side is not so great, and when the impulse of the left ventricle is fairly defined.

But I think it is reasonable to question whether, in coördinating the senses of hearing untouched, there may not be some loss of time in appreciating the latter; that is to say, whether the *sound* may not be conducted through the chest wall, stethoscope, and ear, to the brain in an appreciably less time than the movement of the ventricular systole can be communicated through the chest wall to the finger and along the arm to the brain. In a rapidly acting heart, and especially in the murmur in question, we are dealing with very small fractions of time. Another difficulty that has been frequently recognized, but never hitherto satisfactorily explained, is the large proportion of cases in which the so-called presystolic murmur is absent, and the still larger number in which it is only present during the earlier stage. The absence of the presystolic murmur when the stenosis is most advanced, *and while the auricle is still acting well, as shown by the efficient maintenance of the circulation*, is quite inexplicable on the auricular-systolic theory of the causation of the murmur. On the ventricular systolic theory its frequent absence is more easily explained.

In the first stage of stenosis, when the segments of the mitral valve are still capable of closing without allowing any regurgitation, there is no murmur, but only a prolonged, altered first sound, due to the thickening of the segments, and possibly to a partial want of synchronism in the sounds produced by the two sides of the heart. In the second stage, while the valve is still capable of closing, but moves slowly and so allows of some reflux at first, the characteristic presystolic murmur mounting up to the first sound is produced. In the last stage, when from increased rigidity or calcification the valve is rendered incapable of closure, only a systolic murmur indicative of regurgitation, and lasting during the whole systole, is produced; and the first sound is absent. A very good example of the latter condition has recently been under my care. The mitral orifice was reduced to a narrow slit, the margins of which were calcified, and so rendered incapable of closing. There was no presystolic murmur or first sound, but the latter was replaced by a loud systolic murmur, quite indistinguishable from that due to regurgitation from dilatation of the mitral orifice.

Before closing, may I point out that considerable hypertrophy, affecting the left side—though to a less degree than the right—is much more common in mitral stenosis than is usually taught. The duration of the disease is, I think, the chief element which rules the amount of hypertrophy. It is in young subjects and in rapidly fatal cases that there is little or no hypertrophy.—*Dr. H. Handford, London Lancet.*

INFLAMMATORY AND DEGENERATIVE DISEASES OF THE KIDNEY.—In the various forms of inflammatory and degenerative disease to which the kidney is liable there has been assigned by all the more recent authorities a very considerable share to the Malpighian corpuscles. Since Klebs drew attention to "glomerular nephritis" it is remarkable how the tubular lesions have gradually taken a secondary place. In the current number of Virchow's *Archiv* (Bd. cx., Hft. 1), Dr. Hansemann, one of Professor Virchow's assistants, contributes an article on the subject, which tends, if any thing, to limit the sphere of the changes in the glomerular tufts. His pathological study is based on the examination of 120 cases of nephritis, arising under very varied conditions. He prefaces his account of the results obtained in these morbid specimens by a statement of the normal histology of the Malpighian body, which departs but slightly from the usually accepted teachings. Bowman's capsule, which is continuous with the basement membrane of the convoluted tubule, is composed of a single layer of cells, the nuclei of which may or may not be centrally situated. The tubule is not constricted at its termination, but expands rapidly in a funnel-shaped manner; while developmentally the capsule is formed directly from the curvation of a tubule, and in the same way the epithelial layer covering the glomerular loop is formed. The space between the capsular and glomerular epithelium is filled with fluid which, according to Dr. Hansemann, can be seen in hardened specimens to be traversed by a fine filamentous network. He does not agree with Drasch's division of the glomeruli into a larger set placed centrally and a smaller-sized set placed peripherally in the kidney, the former being multilobed and furnished with a nucleated epithelial investment, the latter bilobed and with a non-nucleated covering. For although it is evident that these bodies vary much in size, there is no such manifest separation in structure and situation as Drasch implies. The glomerular investing membrane is, according to Hansemann, merely a layer of cells with scanty nuclei, and can not, as usually stated, be separated into a basement membrane and endothelium. He also declares that connective-tissue elements are very scanty in the glomerular tuft, being mainly limited to the region of the afferent and efferent vessels; while he disputes the statement of Babes that these vessels at their points of entrance and exit are dilated in an ampullary manner, or that such degenerative processes as amyloid and sclerotic changes select these positions for their starting points. The pathological portion of Dr. Hansemann's essay deals in turn with certain questions respecting the *rôle* of the Malpighian body in renal disease, and the replies to these questions are based entirely upon his own histological studies. The first is as to whether these structures take part in every affection of the kidney; and, if so, are they attacked simultaneously with or before the rest of the organ? He shows that although in many cases of parenchymatous nephritis, as well as of other diseases, the Malpighian corpuscles are involved, yet that cases do occur in which these corpuscles (even in nephritis) may remain unaffected. In a few instances they are so much affected as necessarily to influence the nutrition of the rest of the renal substance, but it is very rare and quite exceptional to find that glomerular lesions are the first to appear. Another point is as to the part played by nuclear proliferation in the glomerular change. This is always more marked in young subjects, in whom the nuclei are normally more abundant. However, there is undoubted evidence of proliferation of epithelia, more especially of that covering the tuft, besides leucocytal infiltration, which is liable to be mistaken for the former. Further, he denies that the pathological changes—for example, amyloid degeneration—to which the glomerular tufts are liable afford any evidence that their constituent vessels are provided with a special endothelial lining, as Langhans asserts. On the contrary, he finds that the delicate walls of these capillaries are simply composed of epithelium. In disease of the Malpighian bodies, it would seem that very extensive changes in the direction of swelling, proliferation, and shedding of the epithelial lining of the capsule and tuft may take place without any apparent lesion of the vessels. This of course does not apply to amyloid change, which commences in the vessels. Lastly, in speaking of the relation of glomerular lesions to those of the rest of the kidney, he distinctly discards the doctrine of a primary glomerular nephritis. He quotes Cohnheim to the effect that it is inconceivable that the several vessels and tubules of the kidney should share equally in the work of secretion, and that inflammation should attack simultaneously all the glomeruli or all the tubules. It accords with experience that nephritis does not involve the whole kidney to an equal extent, or both kidneys in the same degree. And there is sufficient evidence adduced to show that there is no relation between the extent of disease in the glomeruli and that in the rest of the kidney; although it necessarily follows that where a Malpighian body is so diseased as to be functionally destroyed the tubule in connection with it must be more affected than is the tubule connected with a less damaged glomerulus. In amyloid degeneration there is, besides the malnutrition induced by interference with blood-supply, a probability that the tubule connected with the affected glomerulus atrophies from disuse, being no longer required to fulfill its function. The polyuria of amyloid disease will have, then, to be explained in another way, but Dr. Hansemann does not prefer any such alternative.—*Lond. Lancet.*

THE ANTAGONISM OF DRUGS.—Sydney Ringer, M. D., F. R. S., in the British Medical Journal, writes:

Recent investigations render it probable that alkaloids or extractives formed from food in the gastro-intestinal canal, or from the tissues of the body, cause many of the diseases we are called upon to treat. These alkaloids or extractives arise from physiological or morbid changes, and if in undue quantity, or if not quickly eliminated, they may act like poisons introduced into the system from without. Some of these ptomaines and leucomaines produce effects similar to vegetable alkaloids, as, for instance, atropine, muscarine, or curare. Indeed, muscarine can be obtained, not only from the fungus agaricus, but also from animal tissues. Now muscarine, even in poisonous doses, we can effectually antagonize by atropine.

I shall show you to-night that some inorganic and organic poisons can be completely antagonized, normal function being restored. The study, then, of the antagonisms of poisons becomes of much interest and importance, as we may confidently expect, as the result of further research, that we shall be able to obviate the effects, not only of inorganic and organic alkaloids, etc., introduced into the system but the effects of ptomaines or leucomaines engendered in the animal body. Probably some of our successes in treatment are already due to our drugs antagonizing these products.

A short time ago an interesting controversy arose regarding the reciprocal (mutual) antagonism of drugs. On one side it was maintained that drugs might be mutually antagonistic, while other observers denied this statement. The former maintained that the effect of a drug might be antagonized by a second drug, which, if increased in quantity, would manifest its own individual effects, but these effects could be removed by increasing the quantity of the first drug. To take an example, atropine will antagonize the action of muscarine, and muscarine the action of atropine on the heart. To take another instance, atropine will antagonize the action of jaborandi on the submaxillary gland, and *vice versa*; if, after atropine has antagonized the action of jaborandi, a further quantity of jaborandi is administered, it will overcome the action of atropine and salivary secretion will return.

Rossbach disputed this, and maintained that while one drug increases another depresses or suspends function, and the drug which increases function can never overcome the effect of a drug that has abolished function. He admitted that when atropine arrests the secretion of the sweat-glands, pilocarpine may produce perspiration, but he asserts that this occurs only with a small dose of atropine just sufficient to paralyze the secretory nerves, but not the secretory cells of the gland, and that pilocarpine stimulating the cells may produce perspiration. But he maintains that a larger dose of atropine paralyzes both the secretory nerves and the secretory cells, and after this stage no amount of pilocarpine will excite perspiration.

I shall show you conclusively that drugs can be reciprocally antagonistic. I shall demonstrate that the effect of a toxic dose of calcium chloride on the detached ventricle of the frog's heart can be quite antagonized by a toxic dose of potassium chloride, and, *vice versa*, that a toxic dose of potassium chloride sufficient not only to arrest spontaneous beats, but sufficient to prevent a strong induction shock exciting any contraction, can be antagonized entirely by a toxic dose of calcium chloride, and by the careful appointment of the two salts their antagonism can be so nicely balanced that the ventricle will beat spontaneously and quite naturally. Moreover, I will show that a toxic dose of potassium chloride will antagonize a toxic dose of veratria, and, *vice versa*, a toxic dose of veratria will antagonize a toxic dose of potassium chloride, and these two substances may be given with such equipoise as completely to antagonize each other, so that the ventricle will beat quite naturally and spontaneously. So that in the case of calcium chloride and potassium chloride, and again in the case of veratria and potassium chloride, we may have in the circulating fluid two of each series present in toxic doses without either poison exerting any apparent influence on the ventricle, which goes on beating spontaneously and normally, but if one salt were administered singly, it would powerfully affect the functions of the ventricle to an extent incompatible with life.

Concerning the antagonisms to which I wish to draw your attention to-night, I will refer first to a physiological antagonism. If the ventricle of the frog, or of the eel, or of the tortoise, is fed with saline solution (.66 per cent.) contractility soon ceases, and can not be induced by a strong electric shock. On the addition of a lime salt, even in very minute proportions, of 1 part of lime salt to 10,000 parts of saline solution, contractility immediately returns, but the contraction is abnormal, for the dilatation of the ventricle is greatly prolonged, so that the whole contraction lasts much longer than natural. The addition of a small quantity of a potassium salt, as for instance, potassium chloride, 1 part in 15,000 of circulating fluid, obviates this effect of the calcium salt, accelerates dilatation, and induces a perfectly normal beat, and with such a solution good contractions are sustained for several hours. Here, then, we have an antagonism between lime and potassium salts, affecting, however, only one part of a contraction, namely, the relaxation of the contracted muscle.

Not only are the salts of these two substances (potassium and calcium) antagonistic in physiological doses, but they are likewise antagonistic in toxic quantities.

If to a solution capable of sustaining the ventricular contractions we add a toxic dose of potassium chloride, the contractions speedily cease, even when the ventricle is strongly stimulated. Now, on adding a toxic dose of calcium salt, the potassium chloride is antagonized, and if the calcium salt is added in suitable quantity, complete contractility is restored, and the ventricle beats spontaneously and normally; and *vice versa*, if we add to the circulating fluid a toxic dose of calcium chloride, we greatly prolong the duration of the contraction, and especially retard relaxation, but on the addition of a toxic dose of a potassium salt these lime effects are obviated, and normal spontaneous contractions ensue.

Here, then, we have instances where two substances in toxic doses so antagonize each other that natural beats occur; while either substance, added alone to the circulating fluid, powerfully affects the functions of ventricle to an extent incompatible with life.

We are able, however, to analyze the antagonisms between these salts more minutely still. During a contraction four distinct sets of changes occur in the muscular tissue of the ventricle, namely, changes occurring during the latent period, during the period of contraction, during the period of relaxation, and reparative changes independent of those permitting relaxation. Now potash salts, like veratria salts, greatly retard these reparative changes, so that in a ventricle poisoned by potassium chloride these reparative changes are very slowly performed, and hence, after the completion of contraction and relaxation, if a subsequent contraction is soon induced it is a very weak one, or if the stimulus is too soon applied to the ventricle no contraction may occur, and can not be induced till a short time has elapsed, and then the amount of contraction depends on the length of the diastolic pause. This effect of potassium chloride on the reparative changes a calcium salt completely obviates.

We see, then, that a potassium salt accelerates relaxation but retards reparation, in both these respects being antagonized by a calcium salt, and *vice versa*. Another antagonism between potassium and calcium salts still remains to be noticed. If a ventricle be allowed to remain without contracting from a few seconds to a minute, then, on exciting it the first contraction is weak, and the subsequent contractions grow gradually stronger till normal contractions occur. This staircase character ot beats depends, I believe, on the action of the potassium salt in the circulating fluid, and the degree in which it occurs is in proportion to the relative amount of potassium chloride in the circulating fluid. A calcium salt, as calcium chloride, quite obviates this effect. If sufficient calcium chloride be added, no matter how long the ventricle remains without contracting, the staircase character of the beats is prevented, or is very slight indeed.

Strange as it may appear, veratria affects the ventricle much after the manner of lime salts. Thus, added to simple saline solution, it will restore contractility, and further, like lime, it greatly prolongs the duration of the contraction, and especially delays relaxation of the contracted ventricle, and, like lime and potassium salts, we find veratria and potassium salts are mutually or reciprocally antagonistic.

For instance, the addition of veratria to the circulating fluid produces either great irregularity in the contractions or very great delay in dilatation, according to the temperature of the room. This irregularity a toxic dose of potassium quite removes, and good spontaneous contractions return. Further, if the ventricle is greatly weakened or arrested by adding a toxic dose of potassium chloride, veratria quite antagonizes the potassium-chloride effects and restores spontaneous and normal contractions.

Barium and calcium salts, as might be expected from their chemical relationship, have many actions in common. It is interesting to observe that, although lime salts and barium salts both broaden the beat, causing fusion and contracture, barium salts effect this more powerfully than calcium salts; yet after barium has produced its effects, on the addition of a calcium salt, instead of obtaining the sum of their united action the effects common to both salts become less. In other words, lime takes possession of the muscular tissue, excluding the action of the barium salts. It would appear, then, that two substances affecting the same tissue in the same way, when administered therapeutically, one will not necessarily intensify the action of the other, but may replace the other, and we get the action of only one substance, and this, while having a greater affinity for the tissue, may induce a less physiological effect. These results are very interesting, and I venture to think have considerable importance, both physiologically and therapeutically. Thus we have seen that barium and calcium both exert an influence in the same direction, but the barium molecule is the more active in respect of its influence on the ventricular contraction. If, however, we bring both molecules into action simultaneously, we see that the resultant effect, instead of being greater than with either component, is less, the lime displacing the barium and inducing its less physiological disturbance. The relation of this subject to practical medicine is very clear and important, for on the question of the combination of drugs we must remember that the joint action of two drugs functionally similar is not necessarily greater than that of either separately, and may be even weaker than one of them given separately. I have said necessarily, for in some instances two substances having the same action do increase the action of either separately, so that we get the sum of their joint action. This is the case of lime and veratria.

So far we have seen that substances may be antagonistic in two ways. The first we may term physiological, for instance, where two substances inducing an opposite physiological effect on a tissue may be so adjusted that the poisonous action of both is prevented. In the other case the antagonism is probably chemical, and one substance may by a stronger chemical affinity displace another poison, and this may occur, and indeed is most likely to occur, when both substances are chemically related and have a similar physiological effect. But there are other ways in which a substance may act as an antidote.

A lime salt in the circulating fluid, we have seen, is necessary for the contraction of cardiac muscle. Now a soluble oxalate destroys function, in part, by combining with the lime in the circulation and rendering it insoluble and so inoperative. Here, then, we obviate the poisonous effect of an oxalate by adding lime to the circulation. There are still, however, other ways in which we can antidote a poison. A soluble oxalate not only destroys function by withdrawing lime, but is directly to some extent poisonous to the cardiac muscular tissue: and this poisonous action we obviate by the administration of a lime salt, which combines with the oxalic acid, forming an insoluble and therefore inoperative compound. To take another instance, soluble barium salts are poisonous to the cardiac muscle and arrest the ventricle in systole. Now I find that the addition to the circulating fluid of a solution of sulphate of soda will precipitate the whole of the barium, and the ventricle will speedily resume its normal contractility, even though the contractions had been suspended for an hour. The effect of the sodium sulphate is very rapid. Barium salts, one would think, can prove poisonous only to the tissues after more than enough has been absorbed to combine with the whole of the sulphuric acid in the blood and tissues, and it is possible that part of the action of a barium salt may be due to the withdrawal of sulphuric acid from the tissues.

Finally, there is another way by which the poisonous action of some substances can be greatly lessened. Some poisons prevent the changes which take place in the exercise of a function, as, for instance, the contraction of muscle. They do not destroy the structure, they only suspend function, and this power they possess only when the poison reaches a certain percentage of the circulating fluid. If the fluid is diluted, then the percentage amount becoming less the poisonous action is greatly reduced. This is the case with potassium and most other salts. This fact probably explains the effect of bleeding, which has been successfully employed in some cases of poisoning, and is highly successful in uremia. The loss of blood induces a rapid absorption of the intercellular fluid and water from the gastro-intestinal canal, and so, diluting the poison, lessens or removes the symptoms. If bleeding proves unsuccessful the influence of dilution suggests transfusion of a saline solution, also the free administration of liquids by the stomach—methods I long ago suggested.

I now bring this demonstration to a close, and I conclude by expressing the hope with which I commenced my remarks, that the antagonisms we have witnessed justify us in confidently expecting that further investigation will discover remedies by which we shall safely antidote the poisons generated in the body, and that these discoveries will enable us to relieve much suffering or even to save life.

On the Suture of Nerves.—An elaborate article on the subject of the Suture of Nerves appears from the pen of Dr. Reclus, Aggregé de la Faculté de Paris, in *Le Bulletin Medicale*, June 5, 1887, in which the subject is discussed from a physiological stand-point. As the subject is one of the living topics of the day, a very full abstract of this paper is subjoined. In connection with this paper the student will do well to refer to the editorial notices of many recent contributions to this subject to be found in the Annals of Surgery, vol. i, p, 132, 1885, and to the paper by Markoe, vol. ii, p. 181, 1885.

Reclus begins by calling attention to the great obscurity which still hovers over the anatomical and functional changes which a nerve undergoes after section, suture, and union. In spite of twenty years of patient observations and researches, experimental physiology and practical surgery have not been able to come in accord. If we are badly enlightened as to the why and the wherefore of our successes, these are at least so brilliant that at this period primary and secondary suture are imposed upon us.

The work of Waller, Vulpian, Ranvier, and Tripier on the regeneration of nerves is known. When a nerve trunk has been divided, at the end of a time, varying according to the species of animal—about the fourth or fifth day in man—the peripheral segment loses its properties, it becomes inexcitable, and histological examination gives us the key to this decline. The cells attached to Schwann's sheath swell up, surround themselves with protoplasm, and become hollowed at the expense of the myeline. The protoplasm still grows, attacks the axis cylinder, at first injured and then cut through, and the essential element of the nerve is thus destroyed in the whole extent of the peripheral end. This destruction of the axis cylinder is the chief thing, and the subsequent changes are of less importance. The segmented axial filament united with the masses of myeline soon disappears before the proliferation of the cells, whose nuclei keep dividing. So that on the twentieth day the nerve fiber is only a sheath of Schwann filled with protoplasm and nuclei. Again these elements atrophy, tend to disappear gradually, and finally the sheaths are lost in the midst of the interstitial fibrous tissue.

The central fragment, which remains in connection with the nervous axis, also undergoes important modifications; but instead of being attacked in its whole length, only the extremities of the fibers are altered, the lesions never passing beyond the first annular constriction above the section. In this short piece the cells proliferate and the myeline is broken up. Here the destructive processes respect the axis cylinder, which becomes, on the contrary, the seat of a special formative activity, to which is due the phenomena of nerve regeneration, commencing about the twentieth day. At the level of the constriction each axis cylinder buds out and gives birth to one, or sometimes to three fibers, covered with myeline, and formed of very short inter-annular segments. These fibers traverse the sheath of Schwann, in the middle of the nuclei and protoplasm, and reach the peripheral fragment. The axis cylinder may be naked, and it is not until after the first bifurcation that it becomes surrounded with myeline. Thanks to the successive ramifications, a single axis cylinder gives rise to thirty or forty new ones, so that the number which go to regenerate the distal fragment is very considerable. When the two divided ends are in contact or very near, the axis cylinders of the upper segment have only a short space to traverse in order to reach the lower. If the distance is much greater the two extremities cicatrize independently; the solution of continuity persists, and the isolated lower end is not regenerated; but the interval must then be five to ten centimeters or more, otherwise the young axis cylinders of the proximal segment advance through the fibrous, cicatricial tissue formed between the two ends, thus reaching the distal segment, in which the collapsed sheaths of Schwann contain only a few refracting masses —the remains of the old myeline—a little protoplasm and some nuclei. Now these sheaths receive a greater or less number of the new axis cylinders, very slender, no doubt, but completely formed. According to Mr. Renant they are not contained in Schwann's sheath. Sometimes they are placed outside, and roll themselves around like a sprig of a wild vine about a tree trunk, and sometimes they are quite free, forming either straight bundles, in which the fibers often cross one another in a Y-shaped manner or in an interwoven net work.

The nerve is henceforth regenerated. The new fibers can transmit to the muscles excitations of the centers, and can conduct to the centers peripheral impressions. Demonstration of this fact is now beyond doubt, and when the animals are young, if the section of the nerve has been performed with proper precautions, the essential properties of the nerve are re-established after a variable time. This is what physiology teaches us, and the hope which it allows us to entertain. Does the practice of the surgeons realize them in man?

An old observation of Béclard, a case of Pajot dated in 1853, and that of Tangier in 1864, seemed to plead in favor of nerve regeneration in man. Moreover, the utility of suture was believed in until 1867, when a fact of Richet came to compromise the theory. In a complete section of the median that surgeon examined the sensibility before suture, and found, not without surprise, that it persisted in nearly the whole extent of the territory supplied by the divided nerve. Explanations were sought, and Richet and afterward Tripier showed that the phenomenon was due to recurrent sensibility.

These authors have proved that in the upper limb sensibility persists, enfeebled, no doubt, but beyond question, in the parts animated by a sectioned nerve. This retention of sensibility is owing "to the recurrent fibers which the different nerves usually send forth." The anastomoses take place in the region of the terminal plexuses, near the skin or in its substance. They ascend along the different tissues, and are lost later on. After the diaresis these fibers remain intact in the peripheral segment, while the direct fibers—those of the nerve itself—degenerate. It is to the former that we owe the persistency of sensibility, since it is these which are unaltered. This theory, besides being unassailable, and which alone could explain numerous observations similar to that of Richet, soon became the exclusive one. Retained sensibility replaced recovered sensibility, and regeneration was considered by a number of surgeons only as a feature of young animals. It lost all credit in human pathology, and in 1883 Richelot declared at the *Société* de Chirurgie that suture was incapable of producing regeneration in a nerve; the nervous current could not traverse the cicatrix. If sensibility persist it was thanks to collateral paths; and as the analogous paths "are wanting almost completely in motor filaments, movement never reappeared; in those altogether exceptional cases in which it appeared we must put it down to certain anastomoses, the existence of which is far from being constant."

At the time when Richelot wrote this report a mass of observations were accumulating which put in evidence the reality of nerve regeneration in man. Page, Braussold, Th. Kölliker, Boegehold, Tillmans, and Polaillon had published the proving facts, and Chaput in the following year gave us a *résumé* of sixty-six cases in which nerve suture had been performed with success in two thirds of the cases. But in these observations the facts are different, the conditions so diverse and the results so often unforeseen and so incomparable that it is necessary to divide them into a certain number of categories, each to be studied by itself.

The cases where, after suture of mixed nerves—at the same time sensitive and motor—such as the median, the radial, and the ulnar, sensibility alone returned, should first be eliminated, because it is very difficult in these cases to distinguish between retained or recurrent and regained sensibility. There is often only a difference varying according to the time, or even depending upon the esthesiometer, and which may not be appreciated, forasmuch as the initial anesthesia may cause a passing disturbance, local stupor, or even certain hysterical troubles.

In the present state of science we can not explain immediate return of sensibility after placing in contact divided nerve segments, as in the following hitherto unpublished case reported to the author by his friend, Dr. Paul Segond:

A seamstress, aged twenty-five, entered at the Hospital Beaujon at 10 o'clock in the morning. Two hours before she had fallen on a staircase, and a fragment of a milk jug divided, above the wrist, the greater part of the anterior tendons, the ulnar artery and nerve, and the median nerve. MM. Segond and Rémy examined the sensibility. Anesthesia was complete over the whole region supplied by the two divided nerves. The prick of a needle and contact of a red-hot stylet were not felt; and while pinching the upper or central segment of the nerve caused acute pain, vigorous pressure of the lower or peripheral end exhibited none. Suture was at once performed without anesthetics. As soon as the two ends of each nerve were faced together, tickling could be felt over almost the whole extent of integument inervated by the median and ulnar. Ten minutes afterward the contact of a red-hot stylet or a pin was painful. Thenceforth sensibility, proved by Weber's compass, seemed to be perfect. Unfortunately the muscles remained paralyzed and their atrophy persists.

Numerous cases are on record in which, after the suture of divided nerves, sensibility and movement have reappeared after a longer or shorter interval, and in which the effect of "recurrence" can not be invoked as the cause. These are divisible into two groups. The first includes those in which the functions have not been re-established until a considerable time after suture. Several weeks or months may intervene from the time when the two ends have been placed in contact. These facts are in accord with physiology, and confirm the assertions of experimenters. The second group comprises the cases where sensibility and motor power have returned so rapidly that one would be tempted to doubt the observations, were it not for their number and for the worth of the surgeons who have published them. The observations of the first class, which we shall call "physiological," in contradistinction to the second or "paradoxical" cases, are not rare. That of Chrétien, of Nancy, will serve as a type. A boy, aged eighteen years, cut the median nerve with a fragment of a bottle. Sensibility of the palmar surface of the fingers by the nerve has completely disappeared, the muscles of the thenar prominence are paralyzed, and opposition of the thumb impossible. The short abductor, the opponens, and the short flexor are inert. Suture of the nerve is performed. The wound heals without difficulty, and little by little sensibility and movement return. In fact, at the end of two months and a half the patient can already execute opposing movements. The muscles of the thenar eminence contract under the influence of the will, and four months later the use of the hand is easy enough. Finally, eighteen months after the operation, Chrétien again saw the patient. The thenar muscles can be nicely felt when they contract. There is no appeorance of atrophy, and Prof. Beaunis, with the help of the most precise methods of physiology, establishes that sensibility and movement are about the same on the wounded as on the healthy side, and in this case it could not be put down to the anastomosis of the ulnar and the median, for besides that, immediately after the section, paralysis of the opposing muscles was well marked, it was observed that when the movements were re-established excitation of the median above the cicatrix produced contraction of the muscular mass. Moreover, we must be allowed to think that the motor current followed the normal path of the median nerve, and Chrétien seems to us correct in concluding "that union by suture of the two ends of a divided nerve may, even in man, lead to the re-establishment of the motor and sensitive functions of the nerve."

The essay of Marciquez furnishes us with a dozen analogous observations. Cure has not always been so complete, but the patients have often been older, the separation of the ends much greater, or the section of the nerve very high up, leaving a very extensive lower segment requiring a longer time for regeneration. In general, at the fifth or sixth month, under the most favorable conditions, movement has reappeared in the atrophied and paralyzed muscles. There is nothing in it abnormal, and, we repeat, the facts accord with our physiological knowledge of the regeneration of nerves.

Of the second group, or "paradoxical" cases, two facts of Tillaux may be cited as characteristic: A young girl, aged twenty-three years, cut her median nerve. Four months after the wound it is proved that there is insensibility of the palmar surface of the thumb, the index and the middle finger, of a part of the palm, and of the dorsal surface of the last phalanges of the index and middle fingers. Anesthesia is less marked, although very manifest on the external half of the ring finger. The muscles of the thenar eminence are atrophied, and the opposing movements of the thumb are abolished. Trophic lesions exist on the middle and index fingers. The patient urgently entreated operation. The two ends of the median were exposed, and were distant from each other about one centimeter. The central end was swollen, while the peripheral was tapering. They were cleansed, and, with a needle threaded with Florence gut, brought together and exactly adjusted. The thread was cut close to the knot and left in the wound. The most minute antiseptic precautions were taken and the hand kept immovable. From the second day the patient complained of tingling on the palmar surface of the index and middle finger. On the third she perceived the contact of a pin, and even improvement in the movements. Six weeks after the intervention movement and sensibility had so far returned that she could work at crochet and with the needle.

The second operation, performed on a woman aged twenty-eight years, is, so to speak, exactly superposable on the first, the only notable difference being that the section of the median dated from fourteen years before. But in the two cases the same impotence is observed and the same appearances are found in the two ends. The revivifying and the suture were performed in the same manner, and the result in both cases was identical. From the next day the fingers became sensitive and mobility reappeared. Moreover, in the second, as in the first, the results were not ephemeral. Since leaving the hospital the two patients have not only retained the benefits of the surgical interference, but they have seen the benefits increase.

These two cases are not isolated. Three years before Tillaux' communication, Krausold, then Th. Kölliker, then Boegehold, then Tillmanns, had published observations on suture, the first of all the nerves of the wrist, the second of the median and ulnar, the third of the radial, and the last of the ulnar. On the second day, the eighth, the fourteenth, and the twenty-eighth, they respectively saw return of sensibility and mobility. In a recent case of Polaillon sensation manifested itself at the fifth hour.

The observation of Segond, where the disappearance of anesthesia was immediate, has already been referred to. It will be seen that cases of almost immediate functional recovery are already very frequent.

These facts clash with what is known concerning the regeneration of nerves. Whether the suture has been primary or secondary, the immediate or rapid reappearance of sensation and motion can not be explained. When the suture is primary, that is, performed a few hours after the wound, in any case before the end of the fourth or fifth day—the time when the axis cylinders of the peripheral end are already destroyed—the return of the functions would necessitate the immediate union of the two segments. This immediate union has been well observed, but to this hour physiologists affirm that only the fibrous elements of the nerve cord then adhere. The axis cylinder, the essential agent of conductibility, never joins directly to another cut axis cylinder, and the continuity of the nerve can only be re-established by the slow and complicated mechanism of degeneration, such as we have already described.

Immediate union, anatomically and functionally established, by newly formed nervous elements interposed between the still living two segments of the divided nerve, has been affirmed by Gluck and by Bakowiecki, but their experiments have appeared less than decisive to Hehn, Falkenheim, Johnson, Ranvier, and Vulpian. This immediate union, not only questioned, but also rejected, should it be admitted, would only explain a very few of the cases of nerve suture in man. Since in the thirty-nine cases of primary suture, abstracted by Chaput, there are only four of immediate reunion. Moreover, Chaput only considered them as probable, while in twenty-seven secondary sutures there were seven "certain" immediate unions.

Successes of secondary suture—of the two ends separately cicatrized—are still more paradoxical than after primary suture.

Because, however, the explanation of a fact is wanting, the fact itself is not invalidated. The rapid or immediate re-establishment of nerve functions has been observed too often, and by surgeons of too much weight, to question it. For practitioners the rule of conduct is quite settled that when a nerve has been divided its two ends must be approached and maintained in contact by a delicate suture of catgut or Florence gut. Every precaution must be taken to avoid suppuration, since it promotes the formation of fibrous tissue and nodular masses, which compress the cicatrix and affect the functions of the nerve.

A certain number of cases have been reported in which nerve suture having appeared to give a negative result, a fresh incision has been made in order to revivify it and to attempt a more fortunate union, and in which it has been found, after disengaging the nerve trunk from the surrounding fibrous tissue, that the continuity of the nerve has been perfect. No further interference being done, by degrees the functions have been known to reappear. Ehrmann described a very clear case to the Société de Chirurgie. A cut radial was sutured seven months after the accident. Paralysis persisted. Seven months later the nerve was laid bare, the nodular tissue excised, and it was ascertained that the continuity of the nerve trunk had been established; and at the end of a few days mobility returned in the paralyzed muscles.

The first practical conclusion reached by the author is that in cases of divided nerve trunks primary suture should be done, and, if it fail, that a secondary operation be done, which will have a great chance of being followed by success. If the loss of substance of the nerve is so great that the two segments can not be brought into apposition by altering the position of limb or by traction on the threads, "suture at a distance" must be performed, which, as the experiments of Assaky have shown, diminishes the interval which separates the two ends of the divided nerve. By this means, at least in animals, the nervous cicatrix developed along the threads of suture is richer in nerve fibers of new formation than when we abandon the cure solely to nature.—*P. S. Abraham, Annals of Surgery.*

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. IV. SATURDAY, NOVEMBER 26, 1887. No. 11.

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D. T. SMITH, M. D., - - - Editors.

A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year, postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

Books for review, and all communications relating to the columns of the journal, should be addressed to the EDITORS OF THE AMERICAN PRACTITIONER AND NEWS, Louisville, Ky.

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440 to 446 West Main Street, Louisville, Ky.

THE FIFTEENTH ANNUAL MEETING OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

The session of the American Public Health Association, held at Memphis from the 8th to the 11th of the current month, had an exceedingly satisfactory attendance of representatives of the sanitary authorities of various States, medical practitioners and professors, with not a few of the laity who take an interest in matters of public health.

Memphis itself offered the fittest illustration of what may be accomplished in the way of scientific sanitation. Almost depopulated by the fearful yellow-fever epidemic of 1878–9, it is now one of the most flourishing cities in the South, with a death-rate that compares favorably with the most healthy cities in the country. The drainage of the city, by the plan devised by Col. Waring, is thorough and complete.

A good system for supplying the city with water from the Mississippi is yet lacking, but several feasible plans are under consideration, and doubtless one will be chosen that will meet every requirement.

Feeling that they owe so much of their present prosperity to the Sanitary Association and the National Board of Health, the citizens of Memphis were ready to extend the warmest hospitalities to their visitors, and made the gathering the occasion one to be long remembered by those who had the good fortune to attend.

Dr. Sternberg, the President, made a very interesting address, giving a concise history of the present status of bacteriology, to a large extent based on personal experiments. Dr. Sternberg is one of the few men on this side of the Atlantic who have made original research in the study of the harmful organisms.

The President recommends the establishment of a Bureau of Public Health in lieu of a National Board of Health, the prospect of the establishment of which seems to have left the range of probabilities.

A most creditable showing was made for the management of the Louisiana State Board of Health under the direction of Dr. Joseph Holt. Indeed, it would not be easy to award President Holt too much credit for the great state of efficiency to which he has brought the quarantine service at the mouth of the Mississippi. A few years ago the whole valley of the Mississippi looked upon New Orleans with suspicion, never being quite certain that the seeds of an epidemic were not hidden away in some of its quarters ready at any time to send forth devastation like a flood; now all rest in well-grounded confidence, assured in the first place that every effort possible will be intelligently made to keep the city healthy, and that, failing in this, its Board of Health will promptly advise the country of the danger.

Dr. Lomb, of Rochester, the enthusiastic friend of hygienic progress, who has contributed so generously to the resources of the Association in the past, again offers two prizes, one of $500 and one of $200, for the best two papers on the preparation of healthy food for people in moderate circumstances.

WE trust our subscribers will excuse this second late issue, which is due to circumstances explained in the preceding number.

LAME PHILOSOPHY.

Of the various departments of intellectual endeavor, none stands more in need of subjection to severe discipline than attempts at philosophizing.

The cultivation of philosophy is the highest of all mental employments, because of its utility and difficulty; it is therefore to be expected that a smaller number should be found to comply with the exacting conditions of its pursuit than is met with in any other department of intellectual effort. The wide-spread misuse of terms among the masses of people shows how imperfectly the whole subject of the relation of cause to effect, or rather the tracing of effects to causes, which properly constitutes philosophy, is commonly understood.

The terms hypothesis and theory, the indispensable hand-maidens of philosophy, are most often used in a reproachful sense, as if they belonged in the same category with visionary speculation.

The methods of philosophy demand the severest application of logical rules to the widest possible survey of probable causes.

The trouble with too much of the so-called medical philosophy is that mere coincidences or even conditions observed in a limited field are taken for causes.

It too often happens that we ascribe a cause for certain effects in one department, while an exactly similar state of facts exists in another and closely related department, yet under conditions altogether opposite.

Thus voluminous essays have been written to account for the relative numbers of the sexes in the human race, nearly all of them ascribing causes that could be operative in the human race alone, as if sex was regulated by one force among men and another among lower animals; while the most elaborate of them take into account only the conditions and circumstances of animal life.

He who tells us what produces and regulates sex in man must tell us also what produces and regulates sex among lower animals and the also among plants.

The case is similar with another theme for medical philosophers, the cause of head presentations in the birth of the young. Theory after theory has been given endeavoring to account for the presentation of the head in the case of the human young, every one of which involved conditions that could not be affirmed of the young of lower animals, which present by the head with the same uniformity that the child does.

In the great microbian craze, through the mist of which we are just beginning to see the light breaking, this faulty feature has been very prominent. All that is needed with a large list of observers is a disease and a microbe to establish the relation of cause and effect which it is regarded as something akin to blasphemy to controvert. With them it is all inclusion and no exclusion. But a sense of the absurdities of these people is beginning to grow upon them, or the world grows away from them, and time and opportunities are claimed by those who think for more impartial and logical investigation.

In the practice of medicine the growth of a rational system, the application of a true philosophy, is most encouraging. We still have much blind practice; still have too many physicians who, with their indiscreet giving of medicines, interfere with the safe course of disease in numerous instances, erroneously holding that the recovery, which they have barely failed to prevent, is due to their haphazard medication. But the class who watch disease only to aid the natural forces, with a thoughtful consideration of what nature herself can do, is growing every day. Rational medicine, the medicine of philosophy, has every hour a larger army of votaries.

EXOPHTHALMOS.

The curious and interesting disease variously known as Basedow's disease, Graves' disease, and exophthalmic goitre, has lately attracted renewed attention in Germany, with a view to treatment by electricity.

The disease is made up of several symptoms, the principal of which are a pulsating tumor of the thyroid body, palpitation of the heart, and projection of the eyeballs. Another symptom, not rarely overlooked, is known as Graefe's symptom, and is observed on the patient's turning the eye downward, when it will be noted that the upper eyelid does not follow, but shows a large border of white between the upper lid and the cornea. Any of the symptoms, for symptoms they really are, may be absent. The essential nature of the disease is not understood.

Partial paresis of the cervical sympathetic fills the requirements of a causative relation better than any other condition that has yet been suggested. The faulty innervation may account for the palpitation of the heart, the relaxation of the vessels of the thyroid for the pulsating tumor, while a false edema and a relaxation and congestion of the post-orbital vessels account for the exophthalmos. The disease is not dangerous, and possibly never proves fatal, though to the patient, generally a nervous person, it is often the source of great anxiety. It is not at all likely that electricity or any other treatment will do good, except by building up the general strength. A confident assurance made to the patient that the disease is not a fatal one goes very far toward modifying its most distressing features.

AN UNFORTUNATE MISTAKE.

A careful and skillful physician of this city, recently, being about to make a vaginal examination of a patient, ordered a servant of the lady to bring him some lard. The servant understood him to say "lye" instead of lard, and brought a teaspoonful of concentrated lye, which was at that time in use in the kitchen for scrubbing purposes. The physician, not dreaming of such a mistake, and finding the lye about of the consistency and color of lard, anointed his finger and introduced it. The patient complained of atrocious pain, which the doctor thought due to some nervous trouble until his finger began to smart, when he made a closer examination and discovered the unfortunate mistake. The caustic produced extensive sloughing of the vagina and vulva, which will necessarily be very refractory to treatment. The chagrin of the physician may be imagined, though he had acted only as any of us might have done under the circumstances.

Notes and Queries.

Editors American Practitioner and News:

I desire to report the following case of *absent uterus:* Miss A. B., age sixteen, of medium height, unusually fleshy, brown hair, gray eyes, and florid complexion, is of good health, and has always been. Her mother called on me for a prescription to "bring on her menses." After delaying for several months, I informed her an examination would be necessary to satisfy myself that there was no mechanical obstruction, else I might impair the health of an already healthy woman. I found, upon examination, the external genitals just such as would be found on a healthy infant. No hair upon the mons or external labia; no cushion of fat upon the mons, and the clitoris decidely rudimentary. On digital examination the finger found an easy entrance into the vagina for an inch and a half, where it terminated in a *cul-de-sac* or pouch! A sound introduced into the bladder and a finger in the rectum approached each other as in a naturally developed woman until near the terminus of the vagina; but, as the finger passed along the sound, it could be distinctly felt to pass over the fold of the upper end of the vagina and come almost in contact with the sound before it reached the bladder; the end of the vagina could be distinctly felt by the finger in the rectum. No uterus nor ovaries could be felt through the rectum or the short vagina.

As she was unusually fleshy no satisfactory examination could be made through the abdominal parietes. The only inconvenience which can be ascribed to the absence of the menses is an occasional headache and epistaxis, which are not regular. The breasts appear to be well developed; the voice that of a child; the skin smooth and free from hair. In fact, she has none of those characteristics which belong to the opposite sex. She is now seventeen, and no change in her condition.

J. M. HARWOOD.

VACCINATION WITH CALF-LYMPH.—A correspondent, writing to the Echo, complains that his child was vaccinated at the Animal Vaccine Establishment, and that five weeks afterward an eruption appeared on the arms and legs. The child was received into St. Thomas' Hospital, where it has subsequently recovered. From inquiries we have made, it appears that the child has suffered from an eruption due to bromide of potassium, and the circumstance has been fully explained to the parents, but to this the fnther makes no reference. The case is illustrative of the kind of efforts which are made by those opposed to vaccination to discredit this operation.—*Lond. Lancet.*

POSTURE FOR SLEEP AND POSTURE IN SLEEP. It would seem on the first blush of the matter that the posture for—that is, to favor—sleep must be generally the same as that voluntarily or instinctively assumed during sleep; but a little consideration will make it apparent that this is not correct. It may be granted that, supposing a person to be sleeping lightly and uncomfortably, the posture will be changed half-consciously to one of comfort. It would be more correct to say that it is changed in the endeavor to avoid distress or discomfort; but even the fact that sleep is quieter in the new position will not suffice to prove that this is a better one, because the sleep may meanwhile have become deeper. It is, on the whole, impossible to ascertain either by experience or observation which is the posture most conducive to sleep, and attempts to lay down rules for the guidance of bad sleepers are always arbitrary, generally empirical, and rarely of any practical value. Those who think "anemia of the cerebrum" is the cause of sleep, and those who think that, though not the cause, a diminution in the quantity of blood in the vessels of the encephalon is a necessary concomitant of sleep, prefer and recommend that the head should be higher than the feet; while those who adopt the opposite view, and think passive congestion causes or promotes somnolence, would have the feet raised and the head lowered. The confounding of stupor with sleep may, and probably has, something to do with these differences of opinion. Meanwhile a common-sense view of the subject would conclude that, as there is evidently some change in the blood state when the brain falls asleep, the best plan must seem to be to place the body in such position that the flow of blood through the vessels of the head and neck may be especially easy and free. The way to secure this is to allow the head to lie in a posture and on a level that can not offer any obstacle to the free return of blood through the veins of the neck, and does not tend to make the blood flow specially in any particular direction, but leaves nature at liberty to act as she will.—*Ibid.*

PRIZES FOR ESSAYS ON MEDICO-LEGAL SUBJECTS.—The Medico-Legal Society of New York, announces the following prizes for original essays on any subject within the domain of medical jurisprudence or forensic medicine:

1. For the best essay, *one hundred dollars*, to be known as the *Elliott F. Shepard prize.*
2. For the second best essay, *seventy five dollars.*
3. For the third best essay, *fifty dollars.*

The prizes are to be awarded by a commission to be named by the President of the Society, which will be hereafter announced.

Competition will be limited to active, honorary, and corresponding members of the Society at the time the award is made.

It is intended to make these prizes open to all students of forensic medicine throughout the world, as all competitors may apply for membership in the Society, which now has active members in most of the American States and Canada, and in many foreign countries.

All details of the award will be determined by the Executive Committee of the Medico-Legal Society of New York.

The papers must be sent to the President of the Medico-Legal Society of New York on or before April 1, 1888, or deposited in the post-office, where the competitor resides on or before that day.

The name of the author of any paper will not be communicated to the committee awarding the prizes.

All persons desiring to compete for these prizes will please forward their names and address to the President or Secretary of the Medico-Legal Society of New York.

In case an essay is written in a foreign tongue, it should be accompanied by a translation into the English language.

It is hoped that all our members, whether active, honorary or corresponding, will take an interest in this effort to stimulate scientific inquiry and research in questions relating to medical jurisprudence.

Scientific societies in all countries are invited to lay this announcement before their members, and the co-operation of the legal, medical, and public press is respectfully solicited in bringing the subject to public attention.

CLARK BELL,
President, 57 *Broadway, N. Y.*
ALBERT BACH,
Secretary, 140 *Nassau, St., N. Y.*

QUARANTINE DOES NOT DEAL WITH THE MOST DANGEROUS DISEASES.—Relative to the persons who brought scarlet fever to Sutton's Bay, Mich., and who came on the steamship, Ohio, reaching New York September 30, 1887, Dr. Wm. M. Smith, Health Officer of the port of New York, says:

"Developed cases of diphtheria and scarlatina arriving on vessels at this port are removed to Ward's Island. It is impossible under the law for the Health Officer or authorities at Castle Garden to quarantine persons who have been exposed to the contagion of those diseases, consequently the the sick on board vessels during the voyage doubtless often infect their relatives or those with whom they come in contact . . . and who carry the latent contagion to interior communities. I would be glad if the law allowed those exposed to the contagion of these diseases to be held for observation, as is the case when persons are exposed to the contagion of smallpox."

The instance mentioned above is an illustration of what Dr. Smith says: The child having been exposed during the voyage, and taken sick with scarlet fever the day after arrival in New York, so the infected child went on its way to spread scarlet fever. In Michigan at least ten times as many deaths occur from either scarlet fever or diphtheria as from smallpox.

Is it not time that the whole subject of quarantine was investigated by the States and United States Government, with a view to protecting the people of this country from the introduction of the really dangerous diseases?

HENRY B. BAKER,
Secretary of the Michigan State Board of Health.

HARD TIMES FOR DOCTORS.—Next to the undertaker's bill, the last it is within the disposition of man to pay is the doctor's dues. Gentlemen of the medical profession complain constantly that when a man gets well he forgets his physic. The perpetual invalid is the only patient who is always at the doctor's mercy. He must pay his bills or die. This is so the world over—except in Washington. Here there is a class of patients who would go half-starved for a week to pay their physician. Their board may go unpaid, they will do without a new gown or trousers—whichever they wear—and make even their washerwomen wait, but never the doctor! They will stint themselves and all their other creditors in the interest of their family physician. These patients are the Government clerks. They sometimes find it hard to keep the wolf from the door—or the creditor from the Department. The tailor, the milliner, the landlord, the milkman, the butcher, or the man who sells them sour bread for breakfast, may watch and wait in vain, but they will run after the doctor eagerly to pay him for a dose of physic! He holds a mysterious influence over them. They can't draw pay from the Government for the time they have spent in the sick-bed unless the doctor says so, and he won't say so until sure of his bill.—*Medical and Surgical Reporter.*

HOW DR. GOLDING BIRD KILLED HIMSELF. Dr. Routh, in his book on overwork, gives the following account of an interview with that distinguished man: "I well remember a conversation I had with the late Dr. Golding Bird a few weeks before his death. He was then in the zenith of his popularity, and recognized by all as one of the ablest of our London physicians. I called upon him one morning with a relative to consult him. Several other medical men preceded me. His rooms were full, and I had to wait three hours ere I could obtain admission to his study and consult about the case. I congratulated him on his success in practice. 'Yes,' he said to me, 'you are right; but I wish, nevertheless, to make your remark a text for a little parting advice. You see me at a little over forty in full practice, my rooms full, and making my several thousands per annum' (I think he said seven), 'and if I die to-morrow I do not leave as many hundreds to my family. All this I have done by sheer perseverance, unceasing hard work, and no holiday. But I am to-day a wreck. I have fatal disease of the heart, the result of anxiety and hard work. I know that I can not live many months, and my parting words of advice to you are these, never mind at what loss, take your six weeks' holiday. It may delay your success, but it will insure its development. Otherwise you will find yourself at my age a prosperous practitioner, but a dying old man.' Six months after this conversation he had put off this earthly tabernacle."

ANTIPYRINE is a complex chemical body derived from chinoline, and called in chemical term, *dimethyloxyquinizine*. The name of antipyrine was applied to it by the manufacturers for two reasons, first, as a convenient term which would indicate one of its most important properties, and second, in order to have a name which they could copyright to protect their interests. The "patent" referred to by a correspondent covers only the use of the name "antipyrine." The chemical substance may be made by any one who can.—*Medical and Surgical Reporter*

ATROPHY OF THE GASTRIC TUBULES: ITS RELATIONS TO PERNICIOUS ANEMIA.—As early as 1860 Dr. Austin Flint suggested the probable dependence of the group of cases known as pernicious anemia upon degenerative disease of the gastric tubules, and ventured to predict that eventually this opinion would be corroborated. In the October number of the American Journal of the Medical Sciences Dr. F. P. Kinnicutt, of New York, records two cases which came under his notice, which were carefully observed over long periods of time, and in which autopsies were obtained.

The histories well illustrate the group of symptoms which have come to be regarded as pathognomonic of pernicious anemia, and the histological investigations would seem to confirm the opinion which has been expressed by several observers, that "a primary degeneration and atrophy of the gastric tubules occurs," and that extensive destruction of the secretory structures of the stomach may be regarded as causal in a certain number of cases of pernicious anemia.

A CHECK TO THE ILLEGAL USE OF PHYSICIANS' NAMES.—Two weeks ago, under the heading of "A Piece of Newspaper Effrontery," we commented on an article in one of the newspapers in which outrageous liberties were taken with a member of the profession. He was made to appear as having publicly recommended a certain nostrum. We learn that the gentleman whose name was thus unwarrantably used has had the public spirit to unearth the real author of the article and bring him before one of the courts on a charge of criminal libel; also, that it was only the fellow's prompt plea of guilty, accompanied with his formal promise not to offend further in that manner, that saved him from the penitentiary. As it was, he was fined roundly.—*New York Med. Journal.*

THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.—A meeting for the permanent organization of this association was held in Birmingham, Alabama, on the 12th of October, 1887, pursuant to a call by the Alabama Surgical and Gynecological Association, which had been prompted by requests from many prominent physicians in the Southern States asking the Alabama association to extend its membership so as to include members from all the other Southern States. The meeting was organized by the election of Dr. H. N. Rosser temporary chairman, and Dr. W. E. B. Davis secretary. The second, third, and fourth articles of the constitution are as follows:

"ART. II. The object of this Association shall be to organize the profession of the South in the most efficient manner possible for the advancement of the science of surgery and gynecology.

"Art. III. This Association shall adopt and conform to the Code of Ethics of the American Medical Association.

"Art. IV.. Any reputable physician who practices surgery and gynecology, and who is vouched for by two members of the Association and recommended by the Judicial Council, shall be eligible to membership in this body."

The following officers were elected for the ensuing year: President, Dr. W. D. Haggard, of Nashville, Tenn.; Vice-Presidents, Drs. W. D. Webb and J. W. Sears, Birmingham, Ala.; Secretary, Dr. W. E. B. Davis, Treasurer, Dr. H. P. Cochrane, both of Birmingham, Ala. The constitution provides for annual meetings to be held on the second Tuesday in September at such places as may be designated from year to year. The next annual meeting is to be held in Birmingham, commencing the second Tuesday in September, 1888. Dr. W. F. Hyer, of Holly Springs, was elected Orator.

Is Cancer Contagious?—Dr. E. Hooper May, of Tottenham, England, writes to the London Lancet: In 1883 a patient of mine, aged fifty-three, died with cancer of the uterus, and I have since been informed that in 1886 her husband, aged fifty-seven, had to submit to amputation of the penis for cancer, of which complaint he died a few months ago.

The Tenth International Medical Congress in Berlin, 1890.—Soon after the adjournment of the recent International Medical Congress in Washington, the action of that body in recommending Berlin as the place, and 1890 as the time for holding the next International Medical Congress, was officially communicated to Professors Virchow, Von Bergmann, and Waldeyer, of that city. Through Dr. A. Martin, of Berlin, the reception of the communication has been acknowledged, and assurance given that they cordially accept the proposition to hold the Tenth International Medical Congress as proposed. The letter of Dr. Martin, addressed to Secretary-General Hamilton, gives assurance that, so soon as the necessary preliminary conferences can be held, an official communication will be sent.

German Entrance Examination for Medical Students.—An important alteration is proposed in Berlin regarding the qualification for admission to the University of medical students. Hitherto all have had to pass the *abiturienten* or maturity examination at a *gymnasium* or classical school, so that every German medical student has been obliged to prove an acquaintance with Greek. Now, however, the authorities have decided to admit, after Easter, 1888, students who have passed the final or *abiturienten* examination in the *real-gymnasia* or non-classical schools. In these, Latin is of course taught, but not Greek. They correspond, in fact, to the "modern" or "civil and military" departments of our own public schools.

Influence of Occupations upon Mortality.—The English Registrar-General has recently given the results of a comparison of the death-rate in classes following different occupations in England that are worthy of serious consideration. Assuming the average death-rate for the whole population to be 1,000, the comparison shows the lowest death-rate to be with ministers of religion, 556; gardeners and nurserymen, 596; and farmers and graziers, 631. On the contrary, the higest death-rate was with those directly connected with the liquor traffic and hotel service, 2,205; the general laborers in London, 2,020; the innkeepers, 1,521; and the brewers, 1,361.

New Post-graduate School.—The Dean of the Throat Hospital, Golden Square, London, has recently established a post-graduate course, the first of the kind attempted in England, which promises already to be well supported.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. IV. [NEW SERIES.] LOUISVILLE, KY., DECEMBER 10, 1887. No. 12.

> *Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.*—RUSKIN.

Original Articles.

ARREST OF EVOLUTION VERSUS MATERNAL IMPRESSIONS.

BY ARCH. DIXON, M. D.

The subject of maternal impressions upon the fetus *in utero*, at all times an interesting one to the more thoughtful members of the medical profession, has recently been brought into prominence by the able article on Fetal Deformities, read by Fordyce Barker before the American Gynecological Society, at Baltimore, in September, 1886, and more recently by an able paper from my esteemed friend, Dr. T. B. Greenley, of Kentucky, published in the AMERICAN PRACTITIONER AND NEWS, October 29, 1887. Both of these gentlemen have cited cases and produced arguments to prove that mental impressions upon the mother are conveyed to the fetus *in utero*, and are the cause of monstrosities, amputations, nevi, etc.; but, like Hammond, Dalton, Tuke, Seguin, and other eminent advocates of this theory, I believe neither of them claims that these effects are brought about otherwise than through the medium of the blood, which in some way conveys the influence of the existing condition of the mother to the fetus by the interchange of circulation. The evidence brought forward by these gentlemen is far from conclusive, and I think can be successfully refuted by the proof of demonstrated pathological, physiological, and embryological truth, which undoubtedly reveals that all of these so-called maternal impressions, monstrosities, marks, etc., are the result of arrest of development or evolution, pressure by amniotic bands, pressure by the umbilical cord, adhesions of the placenta, or by some pathological condition of the fetus or its membranes, or by heredity.

In order to do this it will be necessary to glance as briefly as possible at the anatomical and physiological relations of the mother to the embryo. Immediately after the fertilized ovule has passed into the fallopian tube it is found to be surrounded by a layer of granular cells. As it proceeds along the tube these surrounding cells disappear, partly by friction on the walls of the tube, and partly by being absorbed to *nourish the ovule*. When the ovule has advanced some distance along the tube it becomes invested with a covering of albuminous material, which also, according to Newport, contributes to its nourishment. During this passage of the ovum through the fallopian tube, the mucous membrane of the uterus becomes thickened and vascular, so that its opposing surfaces entirely fill the uterine cavity. The result is the formation of a distinct membrane (decidua vera) which affords the ovum a safe anchorage and protection until its connections with the uterus are more fully developed. The decidua reflexa is now formed by the sprouting of the decidua vera around the ovum at the point on which the latter rests, and eventually completely surrounds it. The blastodermic membrane, which forms a complete spherical lining to the ovum between the yolk and the zona pellucida, soon divides into two layers, the most external called the epiblast and an internal called the hypoblast, and between them is subsequently developed a third known as the mesoblast. From these three layers is formed the entire fetus; the epiblast giving origin to the bones, muscles, and integuments, the nervous system, the serous membrane, and the amnion; the hypoblast forming the mucous membranes and the alimentary canal; and the mesoblast the circulatory system.[1]

Almost immediately after the separation of the blastodermic membrane into layers, the area germinativa is formed, and in the center of this the first trace of the fetus is detected in the form of the "primitive trace." On each side of the primitive trace two elevated plates arise, the laminæ dorsales, which gradually unite posteriorly to form a tube within which the cerebro-spinal column is subsequently developed. Anteriorly they join to form the thoracic and abdominal cavities inclosing portions of the epiblast, from which the serous membranes of the body are developed. The minute embryo thus formed soon curves upon itself, the dorsal surface of the body becoming much arched. This arching of the back is caused by the quicker growth of the dorsal surface, and by Haeckel is said to be directly connected with the detachment of the embryo from the yolk sac. A distinct thickening is observed at one end, which is subsequently developed into the cephalic extremity of the fetus, while at the other end a thickening less marked develops into the caudal extremity. From these two points the amnion is formed, composed of two layers, which gradually unite and inclose the fetus. During this time the hypoblast is also developing two projections at either extremity of the fetus; one forms the intestinal canal, and the other and much the larger forms the umbilical vesicle, from which the fetus derives the most of its nourishment during the early stage of its existence.[2]

About the twentieth day after conception a small vesicle is formed toward the caudal extremity of the fetus—the allantois or urinary sac of Haeckel—which "grows out from the hindmost part of the intestinal canal; the innermost portion of it afterward changes into the urinary bladder; the outer part with its vessels forms the foundation of the placenta."[3] As has already been said, the ovum in passing through the fallopian tube receives an albuminous coating, and this with the zona pellucida is developed into a temporary structure, the primative chorion. On its external surface villi are thrown out, the office of which is to nourish the ovum by endosmotic absorption from the mucous membrane of the uterus. As early as the twelfth day after conception the *true chorion* is formed with its villi, which dip down into the tissues of the reflexa and are enveloped by it, absorbing what is termed by Ercolani the "uterine milk." "The mammalian embryo, during the period which precedes the extension of the allantoic vessels into the cavities of the uterine walls to form the placenta, must be nourished by direct diffusion, first from the contents of the fallopian tube, and subsequently from the decidua. . . . The marked increase of bulk which takes place during the conversion of the mulberry mass into the blastodermic vesicle shows that during this epoch, relatively speaking, a large quantity of water at least and probably of nutritive matter must pass from without into the ovum, and subsequently though the blastoderm and embryo may for some time draw the material for their continued construction at first hand from the yolk sac or umbilical vesicle, both this and they continue probably until the allantois is formed to receive fresh material from the mother by direct diffusion."[4] "The changes which ensue from this period onward are fully known. The amnion continues to dilate (its cavity being tensely filled with amniotic fluid) till it comes very close to the chorion, from which, however, it remains separated by a layer of gelatinous tissue. The villi of the chorion in the region covered by the decidua reflexa gradually cease to be vascular and partially atrophy, but in the region in contact with the decidua serotina increase and become more vascular and more arborescent. The former region becomes known as the chorion læve, and the latter as the chorion frondosum. The chorion frondosum together with the decidua serotina give rise to the placenta."[5]

Up to this time the embryo has been sustained by nutritious material secreted by the uterine glands, and absorbed by the villi of the chorion. Now the method is changed, and the fetal placenta, which is formed from the chorion frondosum becomes intimately blended with the maternal placenta formed from the decidua serotina and the maternal blood-vessels, and which consists of a cavity containing the maternal blood, into which the villi of the chorion penetrate. But the fetal and maternal blood do not mix, for none of the maternal blood escapes when the umbilical cord is cut, nor can the minutest injections through the fetal vessels be made to pass into the maternal vascular system, or *vice versa*. "The vessels of the mother never anastomose, nor do they come into immediate contact with those of the fetal placenta."[6]

Experiments made by Robin and M. Bonami were conducted with the most extreme care, and in summing up their conclusions they say, "Again, all the minute vascular ramuscles are so intimately connected that it is impossible to separate the vessels belonging to the mother from those peculiar to the fetus, and they can only be distinguished from each other by the different colored injections. But, although the two series thus interlace, the maternal branches never communicate by their terminal extremities with those of the fetus; since the finest injections, when most carefully made, have never established a direct communication between these two orders of vessels, unless by rupture of the walls."[7]

In speaking of the maternal capillary vessels which pass into the body of the placenta, Robin further says, "Having entered the placental tissue, they dilate and communicate so largely as to form throughout the entire mass of the placenta a pool of blood, which bathes the entire placental surface of the chorion at the point of attachment by the pedicle of each villus. The expanse of blood penetrates the fine sponge like interstices between the reticulated ramifications of the villi. But nowhere is there any direct communication between the maternal and fetal blood."[7]

"No nerves or lymphatics exist in either portion of the placenta. The cord contains no nerves, no capillaries, not even vasa vasorum, and no lymphatics."[8]

"Nor has any anatomist ever traced the passage of any nervous branches from the applied surface of the uterus, nor have nutrient arteries been, as yet at least, shown to pass from the uterus into the maternal substance of the placenta."[9]

Other authorities could be cited showing that there is absolutely no direct connection between the mother and fetus, either vascular or nervous, but it would be superfluous to do so. The function of the placenta is undoubtedly to nourish the fetus, and it does this by a process of endosmosis and exosmosis. Just here I wish to call attention to two or three points in Dr. Greenley's article. He says, "If it could be fairly elucidated that there is direct interchange of blood current between mother and child, the oxygenation of the fetal blood would be much more simplified; whether there is direct communication or not, we know that in placenta previa both mother and child are liable to be lost by hemorrhage from separation of the placenta." In such cases the mother frequently is lost from hemorrhage, but the fetus dies from asphyxia, not from hemorrhage; the asphyxia being due to the fact that the placenta is separated, and the fetal blood is cut off thereby from the necessary oxygen which is furnished through the medium of the maternal circulation. Again, the doctor says, "As to whether there is any nervous intercommunication between the mother and child, we all know that the child can be shocked through the medium of the mother. If you place a cold hand on the abdomen of the mother after the sixth month of pregnancy, you will immediately be very sensibly impressed by its movements." This is true, but the movements of the child are not due to any nervous shock received by it, but are due to uterine contractions which are produced immediately by the application of the cold hand. A nervous shock may and sometimes does produce abortion, the abortion being due, not to any influence upon the fetus, but to the contractions of the uterus which are brought about by the influence of the shock on the nerves of the mother. The pregnant uterus is prone to contractions, so much so that uterine contractions are recognized as one of the unfailing signs of pregnancy. Icthyosis was long since described by Sir J. Y. Simpson as an intra-uterine disease. One more question by Dr. Greenley requires answer. He says, "Again, how are syphilis and phthisis communicated to the offspring through the semen of the father?"

The semen of the father does not communicate syphilis to the fetus; the spermatozoon does not carry the syphilitic germ. The child acquires syphilis through the medium of the maternal blood, the mother herself having been previously inoculated. I am borne out in this statement by the bulk of authority among syphilographers. The bacillus tuberculosus most assuredly is not inclosed in the spermatozoon; the child inherits from either or both parents the tendency to consumption, that is, it inherits a fruitful soil for the growth of the tubercle bacilli, which must first be planted there before phthisis can develop.

So much for the vascular and nervous connection of the mother and fetus. Let us glance at the development of the fetus. As early as the first week the thoracic extremities are beginning to form, the abdominal members are present, the vertebral divisions are apparent. The heart exhibits, in its external form, a tolerably close resemblance to that in the adult; the lungs are constituted of five or six globules in which the bronchial extremities can be readily distinguished. During the seventh week the first centers of ossification appear, first on the clavicle and then on the lower jaw. At two months the forearm and hand can be distinguished, the eyes are prominent, the nostrils are rounded and separated, the mouth is gaping, and the epidermis can be distinguished from the true skin. At ten weeks the thoracic parietes are apparent, the fingers are distinct. At the third month the feet are fully formed, and by the fourteenth week the abdominal plates have united at the umbilicus, the genital organs are distinct, and the maxillary processes with their soft parts have united, forming the upper lip. It will then be seen that, if the emotions of the mother ever effect the fetus so as to induce deformity, this must be done at or before the precise time at which the deformed part is undergoing evolution.

That arrest of development or evolution in the fetus does occasionally take place is true, but it is equally true that the arrestment is not due to maternal impressions. The cause of arrest of development may be local or general, as injuries to the mother's abdomen, diseases of the uterus or its membrane, or from hereditary transmission of deformities.

In an essay on compound human monsters, we find these words:

"The maturely and normally developed human body was compared with the embryo. The various species of organized beings and their embryos were compared with man, and as a result we became acquainted on the one hand with the ultimate structure, composition, and science of the human body, and on the other with the general facts, plans, and unity of animal organization, including all its multiform genera and species in every age. On these comprehensive views a new theory of anomalies and monstrosities was founded, viz., that of arrest and retardation of development, which is now found to explain many varieties of monstrosities, but more particularly those which should be regarded as vices of conformation, as for example, cleft formation, deficiencies, absence of parts, etc. By a careful study of the laws of development and the order in which the various organs are evolved in the embryo, it has been observed that monsters by defect or arrest of development are to a certain extent permanent embryos. The abnormal organs merely represent the primitive condition of formation as it existed at an early stage of embryonic or fetal life." [10]

The happy idea, that was first suggested by the master mind of Harvey, relative to certain malformations consisting not in the substitution of an entirely new and anomalous type of structure in the malformed part, but only in the simple permanence of some of the transitory fetal types, has been reduced during the present century into one of the most certain and comprehensive and at the same time one of the most beautiful laws in teratological anatomy. The human germ in passing through its evolution represents anatomically all the types of animal life from the lowest to the highest. "The majority of educated people have never seen such a human germ, nor are they aware that it is not at all different from those of other animals. They do not know that at a certain period this embryo has essentially the anatomical structure of a lancelet, later a fish, and in subsequent stages those of amphibian and mammal forms, and that in the further evolution of these mammal forms those first appear which stand lowest in the series, namely, forms allied to the beaked animals (Ornithorynchus), then those allied to pouch animals (Marsupalia), which are followed by forms most resembling apes, till at last the peculiar human form is produced as the final result. These significant facts are so little known that when incidentally mentioned they are commonly doubted or regarded as unfounded inventions." [11]

Let us suppose now that an arrest of evolution takes place at one or any of these transitory embryonic stages. The embryo remains a permanent embryo of that stage in whole or in part, possessing in all essential points the organization of the primitive condition of formation of that stage of embryonic or fetal life during which the arrest of development took place. The arrest of evolution may affect the cephalic extremity, and the woman go on to term and be delivered of a child perfectly developed in all its parts save the head (anencephalus), and here we have the resemblance which characterized the embryonic stage at which the arrest occurred. At once you have a story manufactured to suit the case; the mother has been frightened by a snake, frog, or what not, some time during her pregnancy, probably as late as the sixth, seventh, or eighth month, and this is accepted (even by some physicians, I am sorry to say) as proof, strong as Holy Writ, of maternal impressions upon the fetus *in utero*.

I delivered a woman, some years ago, of an anencephalus child. The grandmother, a very intelligent old lady, at once ascribed the deformity to the fact that the mother had been horrified at seeing a dog's brains knocked out by a blow from an ax about a month before delivery.

Again, should the arrest of development affect the abdominal plates, which does not necessarily interfere with the evolution of the abdominal viscera, we have the walls of the abdomen wanting and the viscera entirely uncovered save by peritoneum and sometimes extroverted (ectopia) viscera. This also is frequently referred to maternal impressions, when in truth it has its origin in purely local causes, such as adhesion of the allantois to the chorion, and less frequently adhesions of the placenta and amnion. The arrest of development of the maxillary processes causes harelip. The bony parts may unite leaving the soft parts separated (simple harelip), or arrested development of the entire structure may obtain (cleft palate, complicated harelip).

Acephalus fetus, a very common form of malformation, is now known to result from embryonic hydrocephalus, the cerebral vesicles becoming disturbed till rupture takes place. The sides and vault of the cranium as well as the cerebral matter are consequently not formed. As before mentioned, a fact that should be particulary borne in mind is, that if the impressions made upon the mother ever affect the fetus so as to induce deformity, this must necessarily be done at or before the precise time at which the deformed part is undergoing evolution. Thus we will know that as early as the third month the hands and feet are formed, and by the fourteenth week the abdominal plates have united at the umbilicus, the genital organs are distinct, and the maxillary processes with their soft parts have united, forming the upper lip. And yet, in a case of harelip, reported by Prof. Carnochan, the deformity is gravely attributed to a dentist roughly handling the mother's lip during the sixth month of pregnancy. In one of Dr. Tuke's cases the impression was also made during the sixth month of pregnancy, producing a red mark on the child's forehead resembling a flame.

"Cases of exstrophy of the bladder, ectopia viscera, etc., are often cited as examples of some impression made on the mother's mind as late as the fourth, fifth, and even sixth month, when in fact it is now positively known that the causes of this deformity, viz., adhesions of the allantois to the chorion must be operative as early as the fourth week."

Sir J. Y. Simpson long since described intra uterine peritonitis as a "most common fetal disease." He cites a large number of cases, and says, "We may be able to trace many of the malformations of the abdominal and pelvic viscera, as well as those of different other parts of the body, to different diseased actions, but particularly to inflammation occurring in some of their structures during the earlier stages of their embryonic development and growth."[13]

On the other hand, birth marks of fruit, flame, etc. (aneurisms by anastomosis), are undeniably the product of an excess of evolution. "The process of evolution may be excessive as well as incomplete. When excessive in certain portions of the capillaries these blood-vessels, which are in the normal too small to be seen by the naked eye, now become so large as to carry red blood and to impart to the locality (if the skin) a corresponding degree of redness. This is the way marks are formed. An excess of evolution may also produce supernumerary fingers or other appendages."[14]

So much for arrest of development and its causes. Let us turn our attention for a short time to intra-uterine amputations, which are probably more frequently pointed out as the result of maternal impressions than any other congenital deformities. So high an authority as Seguin makes this statement: "Impressions will sometimes reach the fetus in its recess, cut off legs or arms, or inflict large flesh wounds before birth, inexplicable as well as indisputable facts."[15] It is an uncontroverted fact that all the varieties of this deformity can be shown to depend on diseases of the membranes inclosing the fetus or its appendages. Montgomery, quoted by Simpson, as far back as 1836 believed fetal amputations to be the result of the constriction of the limb at the point of separation by a ligature of organized lymph."[13] The cases described by Schaeffer and Zagorsky appear to support strongly the opinion of Montgomery, that amputation of the limbs of the fetus is in some if not in all instances the result of constriction by a cord or ligature thrown around the limb at the point of disjunction. As to the nature of the cords or bands which constitute the constricting ligatures, there seems no reason to doubt that they are formed of organized lymph, and that this lymph has been effused by inflammatory action. The view that has been taken of the disjunctive action, attributed in the foregoing remarks to the forcible and gradually increasing constriction of the bands of pseudo-membrane upon the fetal limbs, seems confirmed in no inconsiderable degree by what is observed to occasionally occur when the same kind of constriction is exercised upon any part of the fetus by the umbilical cord.

Wrisberg has delineated and very minutely described a case which is to the point in reference to constrictions by the cord: "In a deformed fetus of the fourth month the umbilical cord, on leaving the abdomen, ran first over the left shoulder and around the back of the neck, and then came to encircle completely the right upper extremity below the shoulder. To all these different parts it was morbidly adherent, and at the point where it encircled the right arm it imbedded itself deeply in the adjacent soft parts; in its subsequent course the cord, after running again over the left shoulder, returned a second time to the right arm and crossed over it above the elbow, impressing another furrow or indentation upon it at the point of contact. In this case we have an example of the process which produces a spontaneous amputation of the limbs of the fetus going on at two different points in the same arm, and it differs from instances previously detailed in this respect only, that the constricting and dividing agent was not as in them a band of false membrane, but a portion of the umbilical cord."[13]

These views were recognized and maintained by Montgomery, Wrisberg, St. Hilaire, and Simpson, as the solution of the problem of intra-uterine amputations more than fifty years ago, since which time the literature of the subject has been greatly enlarged, until now there remains not the shadow of a doubt that these malformations are dependent upon some pathological condition of the membranes surrounding the fetus, or of the fetus itself. Very frequently nature makes an attempt at restoration, and rudimentary toes, fingers, etc., may be formed upon the amputated extremities. It is well known that this restoration is in ratio to the scale of animal life—the lower the scale the easier and more certainly this restoration is accomplished, and *vice versa;* therefore, the earlier the period of embryonic life at which the amputation takes place the more certainly will there be an effort to restore the parts.

The genesis of double monsters is capable of as ready solution as that of amputations. "That they are not the result of an accidental coalition of twins, at some uncertain period of their embryonic development, neither do they result from a double egg; that is to say, an egg containing two yolks inclosed in one capsule. They are invariably the product of a single ovum, with a single vitellus and vitelline membrane, upon which a double cicatricula or two primitive traces are developed. The several forms of double malformation, the degree of duplicity, the character and extent of the fusion, all result from the proximity and relative positions of the neural axis of two more or less complete primitive traces, developed on the vitelline membrane of a single ovum."[16]

This is not a theoretical opinion; it is an established fact, determined by direct and repeated observation and research instituted by different embryologists. It furnishes a satisfactory explanation of the several laws which have been discovered to preside over the development of double monsters, viz., the law of homologous union, the law of unity of sex, and the less certainly developed law of the transposition of viscera. Homologous union and the unity of sex in duplex formations are positive laws. Twins, having a common chorion, and duplex monsters have a similar origin, viz., the development of a double cicatricula on the blastodermic membrane of a single ovum. The result of normal twins or double monster depends entirely upon the nearness of the two primitive traces to each other.

Geoffroy St. Hilaire long since showed that monsters could be produced artificially, and later, M. Dareste has, by various experiments succeeded in submitting to direct observation the evolution of most of the types of simple monstrosity. "When eggs are submitted to incubation, the conditions of which differ from those of ordinary incubation, the evolution is disturbed and there appear anomalies and monstrosities." M. Dareste has employed four processes with this end: a vertical position of the eggs, diminution of the porosity of the shell by coatings more or less impermeable to air, contact of the eggs with a source of heat at a point near the cicatricula but not coinciding with it; lastly, the production of temperatures slightly above or below that of normal incubation. By the first two processes the evolution is often modified; by the other two it always is. It is farther stated, as one of the most general results obtained, "that monstrosities have always their origin in that period of embryonic life when their embryo is entirely formed of homogeneous blasterma."[17]

The arrest of development is the general process of the formation of simple monstrosities. It acts, first, directly on certain organs; then the change of these organs involves consecutively a certain number of changes in other organs, changes characterized by arrest of development, fusion of similar parts, changes of position, etc.

"The arrest of development at the commencement of evolution affects the embryo itself. It here produces the monsters inexactly known as 'omphalosities.' These, the most imperfect of all, have only an ephemeral existence when they have not been developed in the same vitellus with a well-formed embryo, the head of which serves as a motor for the circulation of the malformed embryo, which is nearly always without this organ. The formation of simple autosite monsters is through a partial or total arrest of development of the amnion or vascular area. The arrest of development of the whole of the amnion causes very various monstrosities, which are sometimes produced separately, and are sometimes associated in greater or less number. Such are celosomia or eventration, exencephalon or cerebral hernia, and various incurvations of the vertebral column and deviations of organs. . . . . The double monsters among birds never arise (as has been supposed) from the union of two vitelli originally distinct, not even from the union of two embryos proceeding from two cicatriculæ existing in one vitellus. In a double monster there are two embryos developed from a single cicatricula and enveloped by the same amnion. The existence of two hearts in double chested monsters is due to two different causes. When the heads are distinct, each heart belongs properly to one of the embryos. On the other hand, when the heads are united together, the two halves of each heart belong to each embryo, each cardiac blastema of one of the subjects uniting with the corresponding cardiac blastema of the other." M. Dareste remarks, in conclusion, "that though his teratogenic researches have been limited to a single species, that they have a much more extensive reference. Indeed, the teratological types and processes of formation which he has cited in birds are exactly the same which are observed in mammifers and fishes. This identity of teratological formations in mammifers, birds, and fishes, is a necessary consequence of the unity of type in vertebrated animals." [17]

The inferences and facts to be drawn from the foregoing review are:

(*a*) That during embryonic existence certain parts may be hindered or arrested in their development, while the other organs not directly connected with them may continue their evolution and become fully developed.

(*b*) That ectopia viscera of the abdomen, spina bifida, cleft palate, harelip, webbed fingers and toes, etc., are only evidence of arrested development of embryonic abdominal, spinal, and maxillary processes, or, in the case of webbed extremities, the continuation of the embryonic hand or foot of the second month.

(*c*) That any agency causing arrest of development of any portion of the fetus must necessarily operate prior to the evolution of the part.

(*d*) That the cause of the arrested development may be local or general, as injuries to mother's abdomen, diseases of the uterus or its membranes, hereditary transmission of deformity.

(*e*) That excessive development of parts of the fetus may obtain, resulting in nevi, aneurisms by anastomosis, supernumerary fingers and toes, etc.

(*f*) That intra-uterine amputations are the results of amniotic bands, placental adhesions, fracture, or from constriction by a loop of the umbilical cord.

(*g*) That amniotic bands or placental adhesions result from inflammation of the uterus, its decidua, or inflammatory diseases of the fetus.

(*h*) That the false membranes causing these amputations may be afterward absorbed, as also the amputated extremity.

(*i*) That so-called double monsters are the result of the development of a double cicatricula on the blastodermic membrane of a single ovum.

(*j*) That twins with a common chorion also result from the development of a double cicatricula on the blastodermic membrane of a single ovum.

(*k*) That in either case there is always unity of sex.

(*l*) That the nearness of the primitive traces to each other determines whether the impregnation will result in separate twins or a double monster.

(*m*) That in twins with single chorion or anastomosis of placental vessels, one fetus may become perfectly formed while the other becomes monstrous.

(*n*) That the development of the abnormality in such cases depends on local anatomical causes, and is governed by definite laws.

(*o*) That every known form of malformation in the human race has its analogue in the lower animals, birds, fishes, and reptiles.

(*p*) That arrest of development at any of the stages of embryonic life results, in part or in whole, in a permanent embryo of the stage at which the arrest took place.

From the consideration of all these facts, the subject is narrowed down to the following questions, viz:

Can the mother's mind produce the diseases of the uterus or its membranes which result in false bands or placental adhesions which cause amputations and other deformities?

Can such impressions cause the umbilical cord to encircle and amputate a limb, or cause the death of the fetus?

Can such impressions reach and act upon the newly-impregnated ovum so as to cause the double cicatricula to approach each other so closely as to result in union and double monsters?

Is it possible for maternal influence to destroy or deform one fetus *in utero*, while another inclosed in the same membranes is uninjured?

A large per cent of congenital deformities being shown to arise from local and other causes which can have no connection with maternal influence, is it probable that at another time exactly the same deformity is produced by maternal impressions?

Is it reasonable that an intra-uterine amputation will be caused in one case by an amniotic band, while in another it may be caused by maternal impressions?

When it is remembered that no nervous connection exists between the embryo and the mother, that there is no distinct blood communication, that the mother's mind can have no influence in causing pathological conditions which have been shown to be the cause of the malformation, that during the first week of fetal life the ovum is surrounded by anatomical conditions precluding maternal influence, whereas it has been shown that the vast majority of malformations have their origin in that period of embryonic life in which the ovum is still homogeneous blastema; when all these facts are considered, can any one believe that the mother's mind can change the conformation of the fetus *in utero?*

"If a man choose to maintain that a fossil oyster shell, in spite of its correspondence down to the very minutest particular with that of an oyster fresh taken from the sea, was never tenanted by a living oyster, but is a mineral concretion, there is no demonstrating his error. All that can be done is to show him that by a parity of reasoning he is bound to admit that a heap of oyster shells outside a fishmonger's door may also be sports of nature, and that a mutton bone in a dust bin may have had the like origin." [18]

I have purposely refrained from occupying valuable space by the recital of cases of so-called maternal impressions.

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THE USES OF THE AMNION.*

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Among the first stages in the process of embryonic development is an arrangement by which the nutrient material contained in the ovum is inclosed in a membrane, the yolk sac, and maintained in relation with the digestive cavity, to be absorbed by it as the growth of the embryo requires.

While the pabulum of the embryo is thus carefully guarded on the one hand by being inclosed in its own membrane, it is further fortified against contamination by the contrivance of a second sac, so situated that certain deleterious excretions of the embryo may be passed into it, and then separated by a double wall from the store of nutriment. This second membrane is the amnion, and the inclosed fluid, consisting in part of the exhalations of the embryo that otherwise would vitiate the nutritive materials provided for its sustenance, is known as the liquor amnii.

In the very limited references to this subject to be found in the current standard works on physiology, we are told that the office of the liquor amnii is to secure for the young animal *in utero* an equable temperature, to protect it from shocks of sudden violence, and to aid in dilating the mouth of the uterus at the time of birth. All these offices undoubtedly it fulfills in the higher animals, but in the lower animals, that is, in the incipiency of its development, none of these functions could have operated in bringing about its structural evolution; for, not to mention the mucoid mass surrounding the germ in the seed of the plant, that is so analogous to the amnion of animals at the period of its earliest tracings that the same name has been given to both, the typical amnion is developed in the eggs of birds, fishes, and reptiles, where it neither protects the embryo from violence, regulates its warmth, nor opens for it the mouth of the parturient uterus. One office, however, it does perform, and this one only, namely, the collection of such deleterious substances as are exhaled from the body of the embryo, and the prevention of their injurious influence on its proper pabulum. It is but reasonable, then, to conclude that originally this was its only function.

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*Read before the Louisville Medico-Chirurgical Society, October 7, 1887. Published from advance slips of the New York Medical Journal.

In the progress of the development of animal life there sprang up from time to time many other offices to which Nature could adapt and devote it, among those already mentioned; and to the performance of these offices Nature did adapt it, for she seems to delight in economizing her resources. In the development of life she has modified the cell to the accomplishment of a thousand purposes. In plant life the leaf has been metamorphosed into the flower, and then into the fruit. It is ever her custom, when once she has devised a useful implement, not to throw it away and create another when a new work of a slightly different kind is to be performed, but she alters it and fits it for the new purpose. So with the waste-bag, the amnion, and its contents, the liquor amnii; numerous important tasks were to be done before animal life should reach its summit, to the accomplishment of which she could adapt this structure and this material. In addition to the offices already named to which they could be devoted was most likely also the prevention of deformities, by supplying a water-bed in which the young might be freely developed.

But it so happened that, if during parturition the young of mammalian quadrupeds came into the world presenting their hinder parts, the stimulus of the air would incite breathing before the head could have time to escape, and a greater number would perish during birth than when the head preceded. But how was this difficulty to be obviated? Mainly by regulating the amount of liquor amnii.

If thrown into water, a calf or pig, even immediately after birth, will, by using its feet just as it does in walking, lift itself to the surface and proceed to swim.

Now, the outlet of the uterus in quadruped mammalia, whether the mother is lying down in the customary way or standing up, is higher than its body. The young quadruped, therefore, by its instinctive walking movements swims head foremost upward to the outlet, and is usually born in this position. But when the highest mammal, the human being, was reached, the conditions became changed. Here the outlet of the uterus when the mother is standing is lower than the body, and, to a less extent, lower even when she is lying on her back. Yet it is a matter of much greater importance that the human young should be born head first, than that the young quadruped should be so born. Will not Nature still find some means by which the structures that have served so long shall still serve and accomplish her purposes? Very easily she does so. A sufficiently early development of the legs, the folding of the arms of the fetus *in utero* in such a way as to prevent them from being efficient in swimming movements, and at the same time the acquirement by the uterus of a progressively increasing conicalness of the lower segment as gestation advances, furnish the modifications required for the altered conditions. While, as we have seen, the instinctive and natural walking movements of the young quadruped carry it upward to the maternal outlet, it is equally well known by all those who have made a practice of diving in deep water that, if the arms are not used while the individual kicks out with his feet, he moves directly and head foremost to the bottom. So the child *in utero*, not using to any practical extent the poorly developed arms, but often making much use of the legs while swimming in the water of the amnion, with great uniformity dives downward to the outlet and is born head foremost.

During the first five or six months of pregnancy it is not material which extremity of the fetal ovoid should first present, for, even if born alive at this early period, the child would seldom be viable. So it is not important that up to this time provision should have been made for its coming head first into the world. The womb is still left spherical in shape, and the movements of the child are limited. During these months, then, as might be expected, children are born as often, or nearly as often, with one extremity presenting as the other. But henceforth more careful provision is made. The uterus now becomes more and more conical in its lower segment. If the fetus, by reason of its diving movements, gets the head into this conical space, it is easily kept there; for the force which put it there still operates, and any slight movements of the arms that may be possible are not likely to displace it.

If, however, the breech should get into this segment, the extension of the legs, which is one of the most constant and natural movements of the fetus, will increase the diameter of that extremity of the fetal ovoid and lift it out. If the head is excessively large, a considerable proportion of such as possess this peculiarity will present by the breech at birth. It is probable, furthermore, that hydrocephalous fetuses do not exert as active swimming movements during uterine life as those that are healthy and vigorous. Likewise, if there is a great excess of the amniotic fluid, as in hydramnion, even after the child has dived and placed itself head downward, it will fall over to one side or the other as soon as it ceases to use its legs; and, labor coming on at such times, it will be liable to present by the breech.

Dead fetuses also, having no power of motion, will have only the advantage of the conical shape of the lower segment of the uterus to enable them to retain the position assumed during life, and may almost as likely present by one extremity as the other.

All these supposed results are not only borne out by reason, but the most carefully kept statistics go to prove that what we have shown ought to be expected does in fact take place, even if not in the way and from the causes herein indicated.

But the destiny of the amnion with its contained fluid is not yet fulfilled. The fetus is to be expelled from the uterus. It is well known, and has been for a long time proclaimed, that the liquor amnii aids in dilating the os during parturition. But it aids also in the expulsion of the fetus in a way that hitherto, perhaps, has not been described. If a toy balloon be fully expanded with air, its form becomes almost exactly spherical, and this is also the shape of a well-blown soap-bubble. And why? Because the sphere incloses the largest space possible for a given amount of investing membrane. Cause the balloon or the soap-bubble to take any other shape, and it will contain less; a part of its contents must escape. Now, upon this principle is based in great a measure the mechanism of expulsion. If we constrict the middle of our balloon with a strong cord, we both cause it to depart from the spherical toward the cylindrical shape, thus reducing its capacity, and also act upon the contents on either side of the constricting band with that form of mechanical power known as the wedge. In this case only the lower wedge can overcome the resistance offered, and it alone will be expelled. If, however, the contents of the balloon were solid, and especially if its walls were free from unctuous covering on the inner surface, such constriction as has been described, and such as the uterus by reason of its circular contracting band experiences, would not exert an expulsive force, but would only cause the contents to be retained with greater tenacity. Now, encircling the body of the uterus, Nature has placed a band of strong muscular fibers whose contraction, by constricting the cavity of the uterus and removing it from the spherical toward the cylindrical shape, acts upon its practically fluid contents at either extremity as upon a wedge. This opens rapidly the os, and, as soon as the child's head enters it sufficiently, it is forced out like the stopper from the mouth of a leather bottle upon which pressure is made. For the accomplishment of this end the muscular substance has been thinned at the fundus of the uterus as well as at the cervical portion. If the muscle at the fundus were as thick as that at the middle of the uterus, very little departure from the form of the sphere could be made by contraction, and the wedge action would be lost.

Another curious and very refined principle is here brought into play. Every one who has practiced gymnastics is aware that in performing what is called chinning the bar, he may, on becoming somewhat exhausted, rise part of the way to it, and then find himself unable to rise higher. Yet he may be able to hold himself suspended with bent arms, even after several pounds' weight has been attached to his body. Likewise, teamsters know that in driving a heavy load up a steep ascent, the team, exerting itself to the utmost, may come to a dead halt without the power to move an inch further, while yet it would take much force to start the wagon backward in opposition to the power of the team. So the thin muscles at the fundus of the uterus, in ordinary contraction, are made to hold, even after they can no longer contract against the force of the circular fibers.

During ordinary pains, therefore, the uterus is diminished in its short diameter without being increased in its long diameter; but under the action of a strong pain, when there is much resistance, the thin fibers of the fundus give way before the power of the circular band and the fundus of the uterus rises in a marked degree.

Herein lies the philosophy of the existence of the circular contracting band. If the power of the muscles were equally distributed, if the muscle were everywhere of equal thickness, the holding capacity referred to could not be utilized. This may be illustrated by, say, four men attempting to slide a heavy timber upward upon skids placed under either end of it. If the men are placed two at either extremity of the beam, they might not be able to move it; but if a single man is placed at one end, he might prevent it from slipping backward while the three others easily advance the opposite end. This thinning of the muscular fibers at the fundus of the uterus and their collection into a thick band about the body is a provision for economizing the power represented by the difference between the measure of force against which a muscle can contract and that of the additional force before which it must give way.

The fetus, having once fully opened the way, dilatation having been fully accomplished, the abdominal muscles take up the cue and by continuing to remove the form of the uterus still further from that of a sphere, on the same principle of the mechanical power of the wedge, complete the expulsion. The lumbar muscles also, by their contraction, curve the abdomen forward and increase the tension of its walls, thus making large contributions to the expulsive forces, receiving, doubtless for this purpose, the reflexes excited by the irritation of the cervix and lower part of the passages.

But not even yet has Nature done with and dismissed this by-product of gestation, the liquor amnii.

If the fetal ovoid be divided longitudinally into two halves, an anterior and a posterior, the posterior will in every likelihood be found the heavier. Since the abdomen of the mother is more or less pendulous while she is in the erect position, this heavier posterior part would naturally gravitate and become the lower and anterior part. This would result in great preponderance of anterior vertex presentations. It is true the mother during gestation, as at other times, must spend considerable part of her time lying down, and while on her back the tendency referred to would not exist, but rather the contrary. But as long as the mother lay on her side the position of the fetus would not be affected.

It it may be that the position of the fetus, with the occiput to the front, is caused in some measure by accommodative movements, which result in adapting the anterior curve of the body of the fetus to the sacral convexity of the spine of the mother; but in lower animals, where the relative shape of the parts is the same, the *spine* of the fetus is in relation to that of the mother.

This occipito-anterior position of the child at the time of birth is much the most favorable one for both mother and child, and the way in which it is secured is a matter worthy of careful investigation. We have already considered how the child comes to present by the head, and how the presentation with the occiput placed anteriorly is usually brought about. Now it seldom happens that the occiput of the child is directed exactly to the front while situated high up in the uterus; for the spinal column of the mother, projecting into the cavity of the pelvis, pushes the face either to the right or the left, and the occiput is thereby turned correspondingly to the opposite side. Since the rectum, which may be much of the time distended, lies to the left of the mesial line of the vertebral column, the face is pushed oftenest to the right side, and thus is brought about the large preponderance of left anterior positions. And here it may be noted in passing that the anterior concave caused by the forward curve of the child rarely embraces the convexity of the spine of the mother, but is directed to one or the other side.

Now, seeing that the head of the child is elongated from before backward, and the inferior strait of the pelvis is largest in the antero-posterior diameter, it would be no matter of surprise if, in passing through the pelvis, the occiput in right and left occipito-anterior positions, should turn directly to the front for, by such a movement, the longest diameters of the fetal head and of the pelvic outlet would be put in correspondence.

But in a certain proportion of cases at the beginning of labor the occiput lies to the back of the pelvis, and yet, as a rule, it rotates nevertheless, and, describing nearly half a circle, passes out to the front. The forces which operate to effect this rotation have long been a matter of attentive study and curious interest among obstetricians, and the question seems to me to have reached as yet no satisfactory conclusion. No apology is needed, therefore, for adding one more to the numerous attempts at explanation already made. In this attempted explanation, it is true, the amnion plays only a minor part, yet a sufficient part, it is hoped, to justify its introduction as one of the factors in rotation.

Any one who will examine a fetus at birth will find that the back part of the head presents a more even outline and a less resisting surface than the fore part. The back part has no marked prominences, but, as a rule, easy inclines. In addition to this, the occiput is apt to be covered with hair, which enables it to retain the unctuous vernix caseosa, constituting altogether an easily gliding surface. On the other hand, the face presents the angularities of the two sides of the forehead, the cheeks, nose, and chin. The surface is also free from hair, a condition which renders it easy for the vernix to be stripped off, thus greatly increasing the amount of resistance.

To render these conditions effective as an explanation of rotation, we have to assume that the posterior part of the maternal passages is the line of least resistance, and offers less obstruction to the passage of the fetal head than the anterior part. I repeat, we have to assume this, for, in so far as I am advised, it has not yet been proved nor generally admitted. However, we all know that the pubis and the short pubic curve do offer a marked resistance to the passage of the fetus. The short turn makes it difficult for the fetal head to glide over obstructions, just as the small wheel of a wagon passes over obstructions with greater difficulty than the larger one. The pubic curve here represents the smaller wheel, the sacral curve the larger one. This assumption being allowed, we come easily to our explanation. It is an established principle in physics that a force moves along the line of least resistance. Both the sinciput and the occiput of the child will seek to move along this line; both the face and occiput attempt to turn to the sacrum of the mother. But as the face is the roughest and most resisting part, it will seek that easier path with the greater degree of force, and will thus compel the occiput to turn to the front, compel it to travel the more difficult path beneath the pubis. Or, to put it more correctly, the most resisting part, the face, is forced away from the most resisting part of the passage, which is the pubic curve, and so it turns to and passes down the sacral portion of the canal.

In many labors this opportunity of election lasts through a considerable period of time. The head of the child during labor is pushed forward by a pain, and while it is advancing the rotating force continues in operation. In the interval of the pain the head may recede nearly as much as it had advanced during its continuance, but, as the recession takes place through a part of the canal that has not only been dilated, but is maintained in dilatation by the head of the child, no corresponding counter-rotation takes place during such recession. The part of the passages from which the head recedes will contract during the withdrawal, and when the head again advances the rotating force will come again into play, and in this way the head may travel a great distance under the influence of the rotating force, while yet making comparatively little advance in the passages.

It is obvious on reflection that if the pelvic outlet is large in proportion to the head of the child, sufficient resistance will not be offered to compel rotation: on the other hand, if the head of the child is relatively very large, or the maternal parts to be displaced in rotation are extremely rigid, less force will be required to push the face under the pubis than to rotate it, and the child will consequently be born in the occipito-posterior position.

The amnion, having already performed nearly all the duties of its office, having subserved nearly all of its uses, does no more in the movements of rotation than to enable the part of the fetus that may remain in the uterus to rotate more freely than would be possible if the water were wanting and the uterus grasped closely the body of the fetus. In reference, then, both to rotation and expulsion, it is plain to be seen how important that the amnion should not be ruptured too early in labor—not until the head has become engaged in the cervix and imprisoned the waters in the uterus as completely as possible.

It is hardly necessary to add that the quantity of the liquor amnii is regulated by the requirements of the functions it habitually performs, and, if so regulated, any excess must be removed by absorption. This does not likely take place through the skin of the fetus, but either through the cord or the tissue of the parietal amnion.

It is clear also that where there is too much or too little amniotic fluid the offspring is apt to perish at the time of birth; and thus it appears that the evolution of the amnion, with its fluid regulated as found in the history of intra-uterine animal life, presents a new and striking instance of the survival of the fittest.

LOUISVILLE.

Reviews and Bibliography.

Transactions of the New York State Medical Association for the Year 1885. Volume II. Edited for the Association by JOHN SHRADY, M. D., of New York County. 8vo, pp. xii–683; cloth. New York: D. Appleton & Co. 1886.

Transactions of the New York State Medical Association for the Year 1886. Volume III. Edited for the Association by ALFRED LUDLOW CARROLL, M. D., of Richmond County. 8vo, pp. viii–601. Concord, N.H.: Republican Press Association. 1887.

The history of this Association was emphatically written a few years since in the great controversy which marked the adoption of the new code by the specialists of New York City. The seceders succeeded in capturing the old society and in drawing away from the path of traditional rectitude many eminent men, but a glance at the volumes under notice, and the first volume (1884), is sufficient to show that the old code retains a large number of staunch and distinguished adherents in the Empire State. Let us hope, now time has dissipated the heat of controversy, that means may be devised that will soon harmonize the discordant elements and blend the opposing parties in a common brotherhood.

The volumes under notice are imposing in proportions, elegant in make-up, and rich in contributions to practical medicine and surgery.

A life-like portrait of the Senior Flint adorns the third volume, which makes melancholy appeal to the interest of the profession at large through eloquent memoirs of this, our greatest physician; and of Frank H. Hamilton, one of the greatest of American surgeons.

Insanity: its Classification, Diagnosis, and Treatment. A Manual for Students and Practitioners of Medicine. By E. C. Spitzka, M. D., President of the New York Neurological Society. 12mo, pp. 423; cloth. Price, $2.75. New York: E. B. Treat. 1887.

The first edition of this, the work of one of our ablest neurologists, has been for several years before the profession. The reputation of the author as an expert upon the witness-stand in several cases celebrated in the annals of legal medicine gave the book a run among judges, jurists, and experts in medical jurisprudence, who found in it much that was new and well suited to their work. To the practitioner of medicine, however, much of it was abstruse and otherwise ill-suited to his needs. In the present edition the author has attended more particularly to the wants of the physician, and considers the various forms of insanity with greater fullness as to their pathological and semiological aspects, while their medico-legal bearings, though well brought out, are discussed with less attention to minor details. This needed readjustment of the work will certainly popularize it with the profession at large and abundantly reward the labor of its scholarly author.

The Modern Treatment of Diseases of the Heart. Part Second. Diseases of the Aorta. By Prof. Dujardin-Beaumetz. Pages, 316. Price 25 cents. George S. Davis & Co., Publishers.

This little volume, being number four of the Physician's Leisure Library, is in the characteristic exhaustive style of its learned author. In regard to the medical treatment of aneurisms he does not "walk by faith," as in the treatment of many diseases he seems to do. He recommends the iodide of potassium internally, as suggested by Balfour, not in the hope of curing aneurisms with a distinct sac, but such only as present simple dilatation as the result of arteritis. Even these, he intimates, when influenced by the iodides are more than likely due to syphilis.

Of electricity in the treatment of aneurisms he speaks highly, giving a number of instances wherein great relief followed the treatment by this method; in some of them this was marked even on the first day of treatment. When we take into consideration the fact that immediate relief from pain has been claimed in various diseases, even in burns, from the use of electricity, and then reflect on the small amount of actual change in an aneurism that could take place in a single day in the direction of permanent improvement, it is easy to see how delusive this method of treatment may be.

But while we might be inclined to question some of the author's positions, we would not gainsay the fact of his great learning, or fail to commend the enterprise of the publishing house that puts into the hands of physicians reading matter of such value at so small a cost.

The Medical World Visiting List. The Medical World, Philadelphia. Regular price, $1.50, to subscribers, $1.00.

This new visiting list is intended to relieve physicians from the necessity of carrying large heavy lists, and the trouble of transfering items to a ledger, and to make his daily accounts legal by being entered in words instead of signs.

Differential Diagnosis. A Manual of the Comparative Semiology of the More Important Diseases. By F. de Havilland Hall, M. D., Assistant Physician to the Westminister Hospital, London. Third American edition, edited by Frank Woodbury, M. D., Professor of Therapeutics and Clinical Medicine in the Medico-Chirurgical College, Philadelphia. 12mo, pp. xix–255. Philadelphia: D.G.Brinton. 1887.

This work is an extension of the original idea of Dr. Hall, and under the able hand of Dr. Woodbury has been made to embrace all that has been contributed to the science of semiology since the publication of the latest edition of the English work. The student and physician will find it a valuable aid to the study of disease and the practice of medicine. The work contains nothing not useful, and the arrangement of the subject-matter is such as to give the reader the greatest possible return for the time spent in its perusal.

Transactions of the Association of American Physicians. First Session, Washington, D. C., June 17 and 18, 1886. President, Francis Delafield, M. D.; Secretary, James Tyson, M. D.; Recorder, James T. Whittaker, M. D. 8vo, pp. xxiv–261; cloth. Philadelphia: William T. Dornan, printer. 1886.

The proceedings of the first meeting of this young society are neither pretentious nor voluminous, but in quality they will compare favorably with any volume of like character extant.

The membership, limited to one hundred, is composed of physicians of the first rank in American medicine, and if the nineteen papers of the present volume be taken as a sample of their work, the society is destined to wield a great influence and rapidly advance the standard of scientific medicine.

Lessons in Gynecology. By WILLIAM GOODELL, A. M., M. D., Professor of Clinical Gynecology in the University of Pennsylvania. Third edition, with one hundred and twelve illustrations. 8vo, pp. 579; cloth. Philadelphia: D. G. Brinton.

This work, in former editions, has long been popular with the practitioner, and needs little attention at the hands of the reviewer. The author's style is characterized by an apt selection of words, while every theme is set forth in a manner learned, scientific, and practical. Few works involving equal measures of technical detail are better fitted to hold the reader's attention from beginning to end.

Diet in Cancer. By Ephraim Cutter, M. D. Reprint.

The True Nature and Definition of Insanity. By C. H. Hughes, M. D. Reprint.

Some Observations on Pelvic Cellulitis. By Virgil O. Hardon, M. D., Atlanta, Ga. Reprint.

Syphilis of the Nervous System, and its Treatment. By Landon Carter Gray, M. D. Reprint.

The Treatment of Pulmonary Consumption, with a report of forty cases. By Thomas J. May, M. D., of Philadelphia.

The Present State of our Knowledge regarding Localization in the Cortex Cerebri. By Landon Carter Gray, M. D. Reprint.

Translations.

WHAT PRINCIPLES ARE TO BE RECOMMENDED FOR THE INSTITUTION OF AN INTERNATIONAL REGULATION OF EPIDEMICS.—At the late meeting of the International Congress of Demography and Hygiene at Vienna, Dr. Sonderegger made the following report on this question:

1. All regulations directed against the spread of epidemics rest on the belief in the existence of contagion.

2. In order that the contagion shall reach active development, favorable conditions of time and place are indispensable. The duty of hygiene is to study the general local receptivity for epidemic diseases, to hinder the development of the contagion; the task of sanitary police is to hinder the entrance of the contagion, and once it has entered to destroy it. If one of these two tasks be executed with the exactitude of physical experiment, the other becomes easy, often useless. But if it is not so, it is a fatal error to think that a regulation of sanitary police, however perfect it may be supposed to be, can be of any service as long as public hygiene is neglected. Hygiene exceeds in importance in time of war as in time of peace, in epidemics as in endemics.

3. The bacteriological discoveries of our epoch have not impaired in any way the value of the predisposition of time and place, on the contrary they have completed it. The formerly unknown force which brought about the explosion of an epidemic in an infected region has now become visible and tangible.

What we call regulation against epidemics relates almost exclusively to the natural history, to the vital consideration of the living contagium, which in accordance with its spe cific nature is susceptible of multiplication and migration.

4. The means of communication in our age have manifestly narrowed the globe, the nations have been drawn together, their reciprocal interchanges have become vastly more important and frequent. These interchanges do not apply to works of the intellect alone nor to the productions of a country and its industry, but especially to the men themselves. The native of any country whatever has become, in a very appreciable measure, a citizen of the world.

5. As to the objects that may become the vehicle of contagion, they travel now with sufficient rapidity to transport the necessary active germs from one country to another; man in particular requires less time to traverse even a very extensive country than a contagious malady, of which he carries the germ, requires to spring into activity.

6. For this object, all the frontiers up to our time have been inefficient for the arrest of the germs of epidemic disease, and efforts made with that view, by the creation of sanitary cordons, have been absolutely useless, and in the majority of cases have been positively injurious.

Complete interruption of all intercourse, hermetic sequestration against the gravest epidemics is a Utopia. This fact is no longer debatable.

7. All measures which restrict to a single country precautions against an epidemic are most frequently insufficient, and that above all in proportion to the importance of the relations of that country and the extent of its frontiers. To attempt to enforce sanitary police regulations in small States or in particular provinces is veritably Utopian.

In large countries, in Italy, 1884, in Spain, 1885, and hitherto in Russia, in Austria, in Germany, in France, and in England, epidemics remain often stationary for a whole year at a time, and in spite of all interchanges of people and merchandise have not encroached upon neighboring nations. It is because the soil is not every where morbific at the same time, and that the inhabitants are not all at the same time in a state of receptivity. It is for this reason that the greater part of contagious maladies come to be epidemic and seldom come to be pandemic. To-day the conditions of contagion are exactly known; but the predisposing conditions, the time and the place, they are not so well known. We can not, therefore, at all know whether an epidemic will remain limited to a single country, and whether neighboring people will remain exempt. Consequently, outside of special sanitary police ordinances in the contaminated country, an international sanitary police is necessary. Its organization as regards time and expense would cost infinitely less than the loss in men and values caused by an epidemic of moderate intensity. Commerce and ordinary political enterprises run much greater risks, with the promise of much smaller gains.

8. All countries in the outset ought to possess a central bureau of public health. But this bureau ought not to be outside of the current of relations which unites all people of the world. In our day a sanitary police intended to guard against epidemics is efficacious only on condition that it is international.

9. The first obligation is to determine and publish each case of an epidemic or contagious malady. Every physician should be required to do this, and when it relates to a disease easily recognizable, as smallpox, or cholera, every master of a house or head of a family should be subjected to the same obligation. These publications should be sent to the central bureau of the district or the country in the most rapid manner possible. It should be the duty of this central bureau (*a*) to inaugurate special suitable measures and to insure their execution, (*b*) to advise directly or indirectly all the central bureaus of the other countries of the continent. Immediate publication by means of the daily press is unnecessary, for it alarms the popular masses, and, furthermore, if the sanitary service is well organized it will have no influence on the taking of efficient measures. It is only when an epidemic has reached an extensive development that the daily publication of the number of cases and the mortality becomes legitimate, and that purely for psychological reasons, with a view of restraining the panic.

10. The tenth obligation is the immediate and complete isolation of the diseased, who may transmit the contagion. For this purpose every important locality ought to have prepared in advance a well-regulated organization and a plan for isolation with necessary material and attendants.

11. In the eleventh place, a service of great watchfulness ought to be organized for the entire population, as yet free from the disease, (*a*) in the locality where the epidemic begins; (*b*) in all centers of commercial transactions. Ships and sea-ports ought to be kept in strict surveillance in the greatest state of purity, in order that they may not become centers of infection. In each commercial center stations of observation ought to be established as asylums to receive the diseased or those who may be suspected of being so, and who shall be pointed out by the employes of railroads and ports and by the physicians of vessels. Quarantine which applies to all travelers is injurious from every point of view. It should be authorized for twenty-four hours or more for the purpose of facilitating observation.

12. Twelfthly, provision ought to be made at the very outset for the disinfection of the probable vehicle of contagion, that is to say, in the case of cholera, (*a*) disinfection in the very chamber of the patient and not in privies and water-closets. In cases of smallpox, typhus, and the pest, disinfection, and, if possible, incineration of the clothing and other objects used; finally, disinfection of the patient himself by ablutions and baths. The old method of the disinfection of travelers by fumigation, so religiously maintained, ought to be formally prohibited as constituting an absolutely useless vexation. (*b*) The provision of an apparatus for the projection of steam in each important locality where there is much passing, such as railway stations, sea-ports, and relays of ports. The application of this is easily understood, and it may be put in operation with another object also in view, namely, the supplying of fire-engines. (*c*) Disinfection of contaminated means of transport.

13. The different States of the continent should have an understanding among themselves in regard to who are to be declared diseased, and to isolation and disinfection, and they should revise their agreements as often as the progress of science and art should require it. For the present period the agreement of the Sanitary Conference in Rome, in 1885, may serve as a model.

14. For an entire continent, a central bureau should be inaugurated, which should insure in in each prophylactic security. This central bureau, international sanitary bureau, ought not to be occupied with scientific questions, and ought not to possess any executive authority, but ought to preserve the character and perform the functions of a center of co-operation. Its duties should be the following:

(*a*) This bureau should receive from or send to the central bureau of each country official communications on the state of epidemic diseases.

(*b*) A summary of the advices of each country should be communicated to all the other bureaus, to insure promptness of execution of the prophylactic measures judged opportune.

(*c*) In like manner the sanitary bureau should act as an international exchange of observations and propositions touching the health service of epidemics, with a view to their uniform application.

(*d*) It should collect the laws and regulations for the police of epidemics, and the facts that are useful to give a clear view of the sanitary condition of the country, and watch for whatever should be announced to all the adherents.

(*e*) It should bring together the statistics of the number of sick and the number of deaths of all epidemic diseases that occur.

(*f*) It should supervise the uniformity of nomenclature of diseases and the utilization of the different statistics.

15. This international sanitary bureau should have its seat in a small State, where the possibility of political pressure is as far as possible excluded, preferably Belgium or Switzerland. It is only when the march of time shall have clearly revealed the innumerable catastrophies due to negligence, as well as the causes which have engendered them, that the different States will resolve to insure an international sanitary

service by the the aid of a penal code like that published in England in 1883.

At present it is impossible to bring this question to a settlement. The only thing possible is the collection and communication of facts.—*Le Progrès Medical.*

Abstracts and Selections.

SURGICAL TUBERCULOSIS.—Volkmann (Langenbeck's Archiv) says: *Tuberculosis of Bones, Joints, and Tendon sheaths.* Every thing that has hitherto been called caries of bones, pedarthrocace, spina ventosa, scrofulous inflammation of joints and bones, tumor albus, fungus articuli, strumous affections of joints (English), in most recent time designated, on Billroth's precedent as fungous inflammation of bones and joints, belongs, with very few exceptions, to genuine tuberculosis.

As an etiological moment in the origin of chronic suppurative affections of bone and joints, a series of other infectious diseases has to be considered; most of them, however, begin acute to become chronic only in their farther course. The most frequent of these, *infectious osteo-myelitis*, often, as we know, leading to suppuration of the joint and destruction of the articular cartilages, presents such a characteristic clinical picture, even when not acute from the beginning nor accompanied by violent symptoms, that diagnostic difficulties can only arise in the more rare form of osteomyelitis epiphysaria or when the processs is localized in the short bones.

Cases of joint and bone suppuration in syphilis, rheumatic fever, and all kinds of septic infection, are also easily distinguished from the tuberculous forms.

In the so-called *metastatic inflammations* of joints after acute exanthemata are mainly the cause of difficulty in deciding their character so soon as they have gone so far as to cause suppuration and destruction of the joint. Some of these cases simply mean septic or pyemic processes; others are undoubtedly tuberculoses, which develop while the acute exanthem still exists, or they closely follow it, and often begin very acute. The question is, therefore, how far in acute exanthemata do suppurative and destructive inflammations of the joints exist, really caused by the specific (exanthematic) poison?

Tuberculous affections of joints start primarily either from the bones or from the synovial membrane.

The primary osseous form is most frequent, particularly in children. It begins in the bony epiphyses by the formation of circumscribed tuberculous foci, which remain small, as a rule, and do not exceed the size of a pea or that of a hazlenut. Diffuse cheesy infiltrations of a larger area of the spongiosa are much more rare. In the beginning, therefore, the trouble is not a joint affection at all, but one of the bone, and may remain as such when the tuberculous foci do not soften or suppurate, or when the foci perforate extra-articular instead of into the joint. At any rate, the purely osteopathic stage may drag along for an uncertain length of time before the specific affection, the infection of the joint follows: This first occurs when the products of the cheesy degeneration and the tuberculous suppuration of the bone reaches the joint.

Tuberculous foci in the spongiosa, particularly in children, have a great tendency to mortify *in toto*, and become separated as characteristic, cheesy, concrement-like *sequestra.* The process of demarkation that then takes place has evidently a very good effect, forming as it does a barrier of granulations, the innermost layers of which are found regularly studded with masses of miliary tubercles, which, however, at the same time protect the neighboring bone from further infection. Cheesy *sequestra* and masses of pus found in tuberculous bone cavities only seldom give rise to new (secondary) tuberculous eruptions and infiltrations in the neighboring spongiosa. Not infrequently several of these tuberculous osseous foci are present (generally not more than two or three), sometimes in the same epiphysis, sometimes in both articular extremities at the same time. They have certain places of predilection, as the olecranon, the iliac portion of the acetabulum, etc., though the relative frequency is not yet decided by exact statistical researches.

The primary synovial form of tubercular joint affections is particularly to be found in adults, more especially in old people: this form prefers certain joints, as the knee, for example.

The miliary tubercles, which infiltrate the synovialis densely, are developed either with or without simultaneous growth of vessels and granulations. In the first case the common fungous form is present, in the second sluggish suppuration of the joints, designated by the older authors as cold abscess of the joints, etc., much more frequently seen in older people, and offers an especially unfavorable prognosis.

Sometimes larger, isolated knots of tubercles develop in the synovialis, reaching to the size of an almond or even to that of a pigeon's egg, and becoming pediculated may project into the joint. The remainder of the synovialis may be free from tubercles from the beginning, but will generally later on become infiltrated with miliary eruptions. Even in the last-mentioned cases healing is possible after extirpation of the knots and short drainage of the joint.

An important question is, how far may inflammations (originally not tuberculous) of joints become tuberculous in their further course? At the present time this is known only in the somewhat rare cases of fibrinous synovitis with the formation of rice-like bodies (corpuscula oryzoidea), and in cases of chronic hydropsies with hyperplastic growth of fatty masses.

Tuberculous inflammations of joints, whether primarily originating from the synovialis or from the bone, do not necessarily, even in their gravest forms, lead to extensive defects of the bone (caries sicca) followed by suppuration in the joint and abscesses. But sometimes the enormous eruption of tubercles in the tissue of the synovialis causes a copious watery exudation—hydrops tuberculosus.—*Journal American Medical Association.*

On the Action of Certain Drugs on the Circulation and Secretion of the Kidney. C. D. F. Phillips, M.D., F.R.S.E., read the following at the Ninth International Medical Congress, held at Washington.

The following paper, which is compressed to the smallest possible space, is founded on experiments undertaken by myself and Mr. Rose Bradford, in the Physiological Laboratory of University College, London.

The evidence at present obtainable from experimental pharmacology as to the precise mode of action of diuretics is by no means satisfactory. The question is a complicated one. Merely to observe the effects of any drug on the urinary flow and the blood pressure is a fallacious method; the important factor, which is omitted, is the effect of the drug on the *renal blood-vessels.* It does not necessarily follow that a drug has the same action on all peripheral vessels, and it is quite conceivable that it may constrict those of one area and dilate those of another. This is particularly true of the kidney vessels, where the flow of urine is not so much dependent on the general blood pressure as on the difference between the renal vessels and those of the body at large. Thus an ideal diuretic would be one that dilated the blood-vessels of the kidney, but constricted all others in the body. On account of considerations such as these, it occurred to Mr. Rose Bradford and myself that it would be well to reinvestigate the action of drugs on the kidney from a rather different standpoint to that usually adopted.

Mosso and others have investigated the peripheral circulation by inclosing a portion of the body, such as the arm or leg, in a rigid vessel filled with fluid and communicating with a delicate registering apparatus, so that any expansion of the limb would, by causing an outflow of fluid, produce a movement of the registering apparatus, which could be recorded graphically on the blackened surface of a revolving drum. Dr. Roy, of Cambridge, has extended this method to other organs, such as the heart and kidney. In this method the kidney is inclosed in a metal box filled with warm oil, the box being of such construction that no oil is allowed to leak out, and at the same time the structures at the hilus of the organ, vessels, ureter, and nerves are not injuriously pressed on. This is effected by the box or oncometer being made in two similar halves, and each half having a piece of peritoneum (specially prepared) applied to it in such a manner that the space between the membrane and wall of the oncometer can be filled with oil. The two halves of the instrument are hinged together, and the kidney placed between the corresponding membranes of opposite halves. This membrane, being very flexible, applies itself accurately to the kidney, so that, to use a simile, the kidney placed in the oncometer resembles, for instance, the heart inclosed in the pericardium full of fluid. The heart would represent the kidney, and the visceral layer of the pericardium the delicate membrane of the oncometer; the pericardial sac finding its equivalent in the oncometer, and the pericardial fluid in the oil filling the instrument. It is obvious, then, that if the oil in the oncometer be placed in communication with a recording apparatus, any expansion of the kidney can be readily detected, and recorded graphically in the usual manner. The recording instrument is called by Dr. Roy the oncograph, to distinguish it from the oncometer. Its exceeding delicacy is shown by the fact that the tracing obtained in this manner from the kidney, say of the dog, is practically identical with a simultaneous tracing of the carotid blood pressure; the slight expansions of the kidney caused by each heart beat, as well as those caused by the respiratory undulations of the blood pressure, being perfectly recorded by this instrument. If, now, in the same animal, we record simultaneously the general blood pressure, the expansion and contraction of the kidney, and the excretion of every drop of urine, we can determine the action of any given drug much more completely than before. Our method of experimentation was shortly as follows: the animal (cat or dog) having been anesthetized with chloroform, or with chloroform and morphia, a cannula was placed in the usual manner in the carotid. The kidney was then exposed, carefully separated from surrounding structures, and placed in the oncometer, this having been previously filled with oil. A cannula was then placed in the ureter, and each drop of urine falling from it was made to break a circuit through an electro-magnetic arrangement, so as to make a mark on the recording surface for each drop. Before commencing the actual experiment, the animal was curarized to prevent any movements, and artificial respiration was maintained. Finally, a cannula was placed in the external jugular for injection of the drugs experimented with. In an experiment performed in this way, the blood pressure curve and the kidney curve remain constant for several hours. The flow of urine is also very constant in its rate in the same animal, but varies in different animals. It is important that the amount of chloroform administered should be constant. This was effected by blowing the air from the artificial respiration apparatus through a bottle containing chloroform.

We will now pass to the action of various drugs, taking first citrate of caffeine. The effects produced by half-grain doses are as follows: (1) On the *blood pressure*. The blood pressure is first lowered, and then is raised. Both effects are of short duration and slight, especially the rise of pressure. (2) On the *heart* there is first a diminution in the force of the beats, followed by a slowing, with beats of markedly increased force. (3) On the *kidney* there is at first contraction, lasting two or three minutes, and accompanied by diminution or even arrest of secretion. This is followed by expansion, which (after a one-grain dose) lasts sometimes over half an hour, the flow of urine being simultaneously trebled. The effects on the kidney can not be the result of the changes in the general blood pressure; this is shown by the fact that they do not occur simultaneously. The effects on the general pressure are slight and last only a few seconds, those on the kidney being measured by minutes.

Another drug which acts in a similar way, is ulexin, a new alkaloid obtained from the seeds of the common gorse (*Ulex Europeus*). It has the objection that in animals the diuretic action is only maintained with doses which would either kill through the respiration or produce violent convulsions. It resembles caffeine in producing first a constriction and then an expansion of the renal vessels, with diuresis. It differs from caffeine in three particulars: (1) It is more powerful. (2) Its effects are more transitory. (3) Repeated doses of caffeine rapidly injected produce contraction only of the kidney, not followed by expansion; but similar excess of ulexin causes only expansion without contraction.

Among other substances that cause expansion of the kidney we may cite dextrose, urea, acetate and chloride of sodium, and probably all the constituents of the urine.

The drugs producing constriction of the kidney are more numerous. Digitalin, in doses of one fortieth of a grain, causes contraction, which persists for as long as half an hour. It is not easy to decide whether digitalis is a true diuretic, or only exerts its effects through the heart. During the contraction of the kidney, however, the flow of urine is not diminished, as is the case with caffeine, but is generally increased. The explanation seems to lie in the effect on the general blood pressure, digitalin raising it, caffeine depressing it. Spartein, on the other hand, though it acts similarly to digitalin on the heart, general blood pressure, and renal vessels, causes a great diminution of urine, and in disease its so-called diuretic effect is due to improvement of the general circulation. We have also made many observations with strophanthin and apocynein; their chief action is on the heart muscle; they produce little or no effect on the peripheral vessels. Both cause a slight temporary contraction of the kidney vessels, but with no definite increase in the urinary secretion. Finally, turpentine, adonidin and barium chloride all produce marked contraction of the kidney, without diuresis.

In summing up the results, we see that reputed diuretics more commonly produce contraction of the renal vessels than expansion. Further, that expansion is either slight, as by acetate of soda; or, if large, as by citrate of caffeine, is only produced by small and initial doses. The powerful action of ulexin on the respiratory mechanism is a great drawback to its use; one sixth of a grain was used in our experiments, but one twelfth of a grain would completely arrest respiration. Then, again, such drugs as produce contraction of the kidney can not be bracketed together, since, though they all have the same effect on blood pressure, digitalin alone has an obviously diuretic effect. We further see evidence of the truth that the flow of urine is not so much dependent on blood pressure as on the rate of the flow of blood in the renal vessels. It is necessary also to remember that although such drugs as strophantin produce a great increase in the force of the cardiac beats, yet the heart is very much slowed, so that it is possible that the amount of blood sent into such an organ as the kidney in a given time may remain the same; whereas, such a drug as digitalis, producing a rise of blood pressure and a contraction of the kidney vessels, may cause an increased quantity of blood to pass through those vessels, and thus it acts as a diuretic. Inasmuch as spartein has not a marked diuretic action, we must also assume that digitalin has some peripheral action on the secretory apparatus of the kidney.

Our results may be tabulated briefly as follows, in three divisions:

(*a*) Drugs that first *contract* and afterward *dilate* the kidney. I shall mention two out of this class: (1) Caffeine, in small doses, induces in the stage of contraction a fall of blood pressure; in that of expansion, a slight rise. During the former the flow of urine may be arrested; during the latter it is always increased, *such increase depending on dilatation of renal vessels.* The possible arrest of secretion during the first stage is special to caffeine, and may be induced by large or repeated doses. (2) Ulexin, one sixth of a grain, greatly raises blood pressure during the first stage (that of a contraction); in the second, expansion is much greater in degree but shorter in duration than under caffeine, and is accompanied by brief but marked increase in urinary flow; the effective dose is limited by its toxic action on respiratory centers. Practically, excess of caffeine induces only the first stage, excess of ulexin only the second.

(*b*) Substances that dilate the kidney, but to less extent and more slowly than caffeine and ulexin, are dextrose, urea, sodium, chloride and acetate, and probably all constituents of the urine.

(*c*) Drugs that contract the kidney without subsequent expansion: (1) Digitalin, with increased secretion of urine probably resulting from general heightened blood-pressure. (2) Spartein, with diminished secretion—in health at least. (3) Strophanthin causes slight temporary contraction, with no marked increase of secretion. (4) Apocynein, similar temporary contraction, and no definite increase of secretion. (5) Turpentine. (6) Adonidin, and (7) varium chloride give similar results.

In conclusion, it seems to us that the plethysmographic method of experimentation is a valuable one for determining the exact action of drugs on the circulation, and one that deserves more attention than it has hitherto attracted.—*London Lancet.*

Case of Vomiting Gall-stones; Death; Necropsy; Communication between Gall-bladder and Duodenum.—(Dr. Frank M. Pope.) L. H., aged forty, married, was admitted on September 3, 1887. Her general health had been fairly good; she had never had jaundice. Two years ago she had an attack of "pleurisy and inflammation of the bowels," and a similar attack six months ago. For the last two years she has had occasional cramping pains in the abdomen. Her present illness began five weeks ago, when, during the night she had violent pain in the abdomen, worse about the right hypochondrium. The pain was unrelieved by pressure, and ease was obtained only slightly by a mustard application. The next day she began to vomit, and the pain became less violent. The vomiting has continued at frequent intervals ever since. She states that she is in the fifth month of pregnancy and has had several children.

State on admission. The patient is a stout woman with a fresh complexion. In the right hypochondrium there is marked tenderness and a sense of resistance, but no tumor. Hepatic dullness not increased. The abdomen is slightly more tender than normally, but nothing more can be made out. There was no abnormal physical signs of heart or lungs. Urine: Sp. gr. 1010; alkaline; contains no albumen or sugar. Tongue furred thinly, and rather dry. Bowels not open for two days. Temperature 98.4°; pulse 70, feeble, regular. She was ordered a bismuth mixture every four hours, and half a grain of opium in pill at the alternate four hours. Diet to be milk, lime-water and ice.

On the day after admission she was still vomiting constantly. The vomit was green at times. No other change. On September 5th, two days after admission, the note was: Last night she had a considerable increase of pain, accompanied with slight convulsions and internal strabismus. She was not unconscious. She had nutrient enemata, with half an ounce of brandy in each, every four hours. Early this morning she vomited two gall-stones of about five eighths of an inch in diameter, with six or eight facets on each, and several smaller ones. The pain continued. She was a good deal collapsed. Temperature 97°; pulse very slow and small; bowels not open. All food and medicine by mouth were discontinued, and she had an effervescing mixture with three minims of dilute hydrocyanic acid. On the 6th she was in much the same state, and had vomited a few more small stones. On the 7th the bowels were freely opened, and the motions contained several gall-stones, one nearly three quarters of an inch in diameter. A few more small stones were vomited. She was taking essence of beef, and a very little milk. After this she slightly improved, the vomiting almost ceased, and she began to take a little more nourishment; but on the 17th she had another convulsive attack and subsequent collapse, from which she was revived by hypodermic injections of ether. The vomiting never entirely stopped, and on the 24th diarrhea set in, and the nutrient enemata had to be stopped. On the 25th the temperature was 100°, the highest since admission. She was rather delirious, took little food, and the diarrhea continued. She gradually sank and died at 7:20 A. M., on the 27th, twenty four days after admission.

Necropsy, thirty hours after death. Body fairly well nourished. Permission was obtained only for examination of abdomen, on opening which nothing abnormal could be seen; no general peritonitis, no excess of peritoneal fluid. Uterus reaching nearly to umbilicus On raising the liver the gall-bladder was found to be situated in a circumscribed abscess cavity, formed by the adhesion of the neighboring organs. The gall-bladder itself was in a sloughy condition, and several ragged openings existed at its fundus; some small stones had escaped into the cavity. There was a circular opening half an inch in diameter, with well-defined edges, leading from the gall-bladder into the duodenum, at about three quarters of an inch below the pylorus. The common and cystic ducts were patent; one or two small stones were found in the duodenum. The stomach was healthy, and there was no ulceration from the gall-bladder into it. The rest of the abdominal organs were healthy. The total number of stones vomited weighed 170 grains; those passed per rectum 103 grains.—*Ibid.*

ANTAGONISM AMONGST BACTERIA.—Dr. C. Garré, of Basel, has found in cultivation of micro organisms that there is sharp antagonism among some, probably through their excretions. (*Deutsche Med. Wochenschr.*, No. 27, 1887; London Medical Record, October, 1887.) For instance, some aërobes, which spread only on the surface of gelatine, in a short time so alter the nutritive substratum that certain other micro-organisms can not exist in it. He says that this fact has not been taken into consideration as yet, though various observations made in the cultivation of cholera and typhoid-bacilli and experiments on the multiplication of pathogenic bacteria in water have shown that there is probably antagonism between the pathogenic species and saprophytes. To elucidate this, Garré adduced the following facts: A non liquefying cultivation was planted on the surface of meat-peptone gelatine. After a complete development, it was removed with a sterilized platinum spatula. Other micro-organisms were then planted on the remaining sterilized medium. A comparison of the retarded growth with another cultivation gives the degree of antagonism between the two species. With liquefying species the nourishing substratum was filtered through potter's earth, and gelatine added afterward. In this way the mutual relations of a number of pathogenic and non-pathogenic species were tested. One species proved to be pre-eminently antagonistic; namely the bacillus flourescens putridus, described by Flügge. It excretes specific, easily diffusible substances, the oxidation products of which tinge the gelatine with a greenish color, and hinder the development of the one set of species, while it has no effect whatever on the other set. If such cultivations were removed from the gelatine in the manner described on the third or fourth day, and staphylococcus pyogenes aureus inoculated on this "fluorescens medium," no development took place nor did the typhoid bacillus, pneumonia bacillus, etc., develop. The Asiatic cholera bacillus and the bacillus mycoides developed but slowly, but the bacillus anthracis and the comma-bacillus had a luxuriant growth. It appears, therefore, that the bacillus fluorescens putridus is a pronounced enemy of the pneumonia and typhoid-bacilli, and by its implantation the nutritive substratum is protected against them. The reverse, however, does not hold good. There are, however, so-called symbiotic bacteria that flourish side by side, and some even, which Garré terms metabiotic bacteria, whose existence depends on the presence of others. Garré asserts that these facts are not confined to experiments in test-tubes. He points to the strife between saprophytes and cholera bacilli in ichor and canal water, the cholera bacilli always succumbing. Such condition may occur in the intestines, and may in some cases lead to the erroneous supposition of natural indisposition to cholera. The torpid development of periostitis of the jaw, when the staphylococcus must come into conflict with other species, is explained by Garré on the supposition of such antagonism. He closes with the two following points as regards immunity:

1. That immunity from a certain disease may be caused not only by micro-organisms of the like species (vaccination), but perhaps by entirely different microbes.

2. Antagonism quickly produced in the living body may favorably affect infectious diseases already existing. If this be true, a wide and fruitful field is open up to bacterial treatment.

THE FORGOTTEN WORTHIES OF MEDICINE. A volume may be devoted to this theme, and one of its most interesting chapters would be descriptive of the heroic life and death of Eusebio Valli. That gifted Tuscan physician, whose anticipations of Pasteur's prophylactic treatment of rabies have already been noticed in the Lancet, met his death at Havana in circumstances which do honor to himself and to his calling. From his oriental experience with the plague, he had convinced himself that inoculation might be extended to yellow fever—as, indeed, it has quite lately been by Dr. Freire at Rio de Janeiro. In 1815 he was acting as ordinary physician to the Military Hospital at Dijon, in France, and, with the sanction and aid of King Louis XVIII, he set sail on December 14th of that year for America to put his theory to the proof. Arrived at Philadelphia, he had an interview with the celebrated Dr. Moore, who warned him against the attempt; but Valli made the characteristic reply: "Believing in the contagious character of yellow fever, I propose to inoculate myself with the perspiration of the moribund from that disease, and also with the bile taken from their dead bodies, modifying the poison with the selfsame reagents I employed in my experiments on the plague of the East. If it is inscribed in the Book of Fate that I am to fall a victim in this great ordeal, my death will not be without honor." In 1816 the yellow fever did not visit North America, so Valli set out for Havana in quest of patients suffering from the malady. He presented himself to the public health authorities of that city, and they so far approved his design as to nominate two physicians, Dr. Antonio Machado and Dr. Romay (who afterwards wrote his *éloge*), to be his assessors. On September 20, 1816, he was conducted to the Hospital of St John the Divine in Havana, and there he found a patient from yellow fever *in articulo mortis.* Valli watched the aspect of the sufferer—the black sanious blood oozing from his mouth and from other parts of his body; and, having felt his pulse, he withdrew. He returned next day to the bedside of the patient, now a corpse. Then, before proceeding to inoculate himself with the vomit and the bile, he put on the nightgown of the deceased, saturated as it was with perspiration, and rubbed it well over his back, breast, and abdomen. He had not long returned to his abode when the first symptoms of the peculiar *malaise* supervened. On the evening of the next day, September 21st, he sent for Dr. Romay, who found him pale as death, his strength gone, the life rapidly ebbing. He could pronounce only a few broken sentences, interrupted by long-drawn sighs. He said: "My fate is irrevocable; I am dying." Every thing that his medical friends could do for him was done; but, after lingering in a comatose state till the the third day from his seizure, he expired (September 24th). The Sociedad Económica of Havana, in grief and admiration for their guest, caused his portrait to be hung in the public library of the city, an honor up to that time accorded to but two members of the Society, and they also had inscribed on his tomb an epitaph still read by the stranger in the cemetery of Havana, and of which the following is a translation: "To God, the Allgood and Almighty. Here lies Doctor Eusebio Valli, victim to his love for mankind; the Economic Society of Havana solicits for his memory the prayers of the pious. Anno Domini 1816." A descendant of Valli's, the Cavaliere Giuseppe Valli, advocate, has recently been at pains to collect all the papers and documents relating to his illustrious kinsman, and to weave them into a suitable memoir—mainly by the help of Spanish and other foreign coadjutors, his compatriots, by their neglect of the good and great physician's name and memory, having long incurred the reproach now launched at them by his latest biographer, *Nemo propheta in patria sua!—Lond. Lancet.*

BACTERIOLOGY AND PRACTICAL MEDICINE. The following interesting survey of the position of bacteriology with respect to medicine is transcribed from the *Centralbl. für Bacteriologie* (No. 18). It appears as an abstract, by Dr. Bujwid, of Warsaw, of papers by Dr. Hoyer, in the Polish journal *Gazeta Lekarska.* The author, who was the first to commence working at bacteriology in Warsaw, discusses the changes which medicine has undergone by the study of the parasitic origin of infectious diseases, and arrives at the following results:

All researches hitherto undertaken have aimed at learning the excitants of disease; very many of them have been discovered, and many have been profoundly studied, so that the cause of nearly all infectious diseases has been made known; but bacteriology has hitherto confined itself to these limits. Practical medicine in the more limited sense—prophylaxis excepted—has gained very little therefrom, but it may be hoped that the medicine of the future will play quite a different part in consequence of the deeper knowledge of the various bacteria and their properties. Many purely empirical drugs will be rejected, and in their stead will be employed those which bear directly upon the morbific agent, or which act by strengthening the resistance of the organism. Unfortunately many questions still remain open. We know, for instance, very little of the way in which bacteria influence the physiological life of the organism. We can not as yet determine why many micro-organisms which are introduced into the body in enormous quantities with water, air, or food, do not give rise to derangements, or in what manner the really harmful organisms disappear from the blood or organs of some animals. Of great importance for the practitioner are the facts that similar groups of diseases can be excited by wholly different micro-organisms. Abscesses are produced, for instance, by the action of staphylococcus aureus and albus, streptococcus pyogenes, micrococcus tetragenus, and others. Erysipelas following wounds depends not only on the streptococcus erysipelatis of Fehleisen, but also on other streptococci and micro organisms. Pneumonia is not only excited by Friedländer's pneumonococcus, but also by other bacteria. Two very similar diseases—cholera asiatica and cholera nostras—arise from two very different kinds of bacteria. There are other facts of still greater importance, such as mixed infections. Rosenbach found many very different bacteria in the same abscess. The same is the case with septic infection of wounds. Similarly, as Wiegandt has observed, a kind of streptococcus is occasionally associated with tubercle bacilli. Dr. Dunin has shown that certain complications of typhus depend on the presence of other bacteria, etc. When all these questions are solved, then our system of diseases will also be changed; we shall then no longer group them according to symptoms, but causes. There still remain many such questions unsolved. We do not know, for example, upon what depend the different results of experiments on animals when we inject small or large quantities of bacteria. Lastly, we also know very little of the reason why individuality plays so large a part in the manifestation of disease. Very interesting but unexplained is a research pursued by Wysskowitsch. He found that bacteria which had no effect on healthy animals excited diseases in other animals whose organism was slightly deranged. Thus, injections of staphylococcus excited endocarditis in animals whose heart valves were injured. When all the foregoing and many like problems are solved, then it will become more easy to employ bacteriology in practical medicine, and then we shall learn to estimate rightly the great value of this new study.—*Ibid.*

THE SURGICAL TREATMENT OF PERITONITIS. The propriety and value of surgical intervention in the treatment of certain forms of peritonitis formed the main subject discussed at the last meeting of the Clinical Society. The cases which gave rise to the debate belonged to two different categories, and perhaps for that reason the discussion was rather involved. It may therefore be convenient to analyze it on each head. In his successful case of acute suppurative peritonitis, Mr. Barwell was pursuing the practice which was brought before the notice of the Royal Medical and Chirurgical Society by Mr. Treves and Mr. Marsh two years ago, giving rise to an interesting debate on the occasion. For although, as Mr. Barwell said, the priority in conception of this procedure rests with the late Mr. Hancock, the operation itself with the deliberate intent of treating the peritoneal condition was first performed by Mr. Treves. It may now be considered not only a legitimate but a very valuable means of treatment, and one which is sure to become more widely practiced. Mr. Barwell's case was also instructive, as the President pointed out, on account of the large accumulation of gas present within the abdominal cavity; which makes it more than likely that the peritonitis had been excited by a perforation of the bowel, perhaps of the vermiform appendix. General peritonitis due to perforation is almost invariably fatal, so that physicians may be justified in having early recourse to the aid of the surgeon, who by incision and drainage can promise a more favorable issue. As to the *technique* of the operation, nothing can be simpler, and it was clearly shown that no better medium for washing out the cavity could be employed than pure water, provided this were supplied in sufficient amount, and the irrigation were as thorough as possible. At the Clinical Society more attention was bestowed upon the subject of tubercular peritonitis, the two cases furnished by Dr. Knaggs and Mr. Clarke of Huddersfield forming the chief topic of the debate. Here we may remark how deeprooted is the notion that tubercular disease of a serous membrane like the peritoneum is necessarily fatal, and the impression conveyed by Dr. Burney Yeo's questions was certainly to that effect. We may refer all those who still hold to this opinion to a clinical lecture on Tubercular Peritonitis in Children, by Dr. Gee, published in this journal six years ago (The Lancet), and his statement that "recovery from tubercular peritonitis is common" will be indorsed by physicians who practice in children's diseases. In adults cases of recovery from this disease are less common, but Sir Spencer Wells' celebrated case is a standing refutation of the prevalent pessimistic views which would regard tubercular peritonitis as being as hopeless as cancerous. The debate, however, did good service not only in correcting this impression, but in showing how materially recovery is aided by draining the cavity of its contained fluid. Here, again, a lesson may be learned from the practice often adopted in the case of children with considerable success, viz., simple paracentesis. Whether irrigation and continuous drainage is superior to paracentesis, which may have to be repeated, experience alone will show; but that the essential thing is to withdraw the fluid so as to allow the affected serous surfaces to come into contact was strikingly brought out in the report which Mr. Treves gave of the recently recorded experience of German surgeons. The measure of success obtained did not seem influenced by the adoption of various methods; the essential point was that the peritoneal sac should be laid open. It would thus appear (as was suggested in the debate) as if the effused fluid were itself a source of danger; but that it is absolutely necessary to "alter the character of the inflammation" by the injection of iodine, carbolic acid, or other irritants is still an open question. Dr. Knaggs and Mr. Clarke are to be congratulated on the result of their bold treatment, which may well be adopted in similar cases uncomplicated by active tubercular disease of the lung or ulceration of intestines. Such cases in the adult are not so very common, and their diagnosis is not always simple; but that the local tubercular process may be quite arrested and the general condition of the patient vastly improved by local drainage (aided, of course, as Mr. Parker pointed out, by general treatment) have been amply shown.—*Ibid.*

Belgian Judges on the Value of Medical Services. — Belgian judges would seem to entertain a very poor appreciation of the value of a medical man's time and services, if we may judge by a case that has recently been tried at Louvain. A medical man in country practice, having attended a wealthy old bachelor for some five months before he died, sent in his account to the executors, who disputed it as exhorbitant, and so the doctor was compelled to endeavor to recover his fees by an action in a court of law. The account amounted to 1,175 francs (£47), which comprised thirty-eight consultations with a Brussels physician at 20 francs (760 fr.); fifty-six day visits at 5 francs and five night visits at 10 francs (330 fr.); medicines, 85 francs. The defendants denied that the visits with the physician were consultations, and they offered 2 francs for each day visit and 3 francs for each night visit. The court, however, "considering that the patient lived three miles from the doctor, who was obliged to make visits at definite predetermined hours along with a colleague from Brussels, and that night journeys, especially in winter, are troublesome," decided that "day visits might be equitably fixed at 2.50 francs, and night visits at 5 francs," so that all that was allowed the unfortunate practitioner was 235 francs, for ninety-four day visits, 25 francs for five night visits, and 85 francs for medicine (the only item which was not disputed), so that the total was cut down to 345 francs (£13 16s.)—a magnificant remuneration, indeed, for such an attendance! A cab-driver would certainly expect more for a similar number of journeys.—*Ibid.*

Antifebrin: its Antipyretic Action.— Dr. E. W. Evans (Therapeutic Gazette) summarizes numerous experiments thus:

1. Antifebrin effects marked depression of normal bodily temperature.

2. During the depressing action of antifebrin on normal temperature it seems to cause a slight fall in arterial pressure, although this is by no means a constant result, as it may cause a rise.

In the opinion of the writer, however, this drug in lowering temperature acts as an arterial sedative.

3. Notwithstanding the fact that antifebrin influences to such a marked degree normal bodily heat, it seems to possess little power against the pyrexia produced by the introduction of pepsin into the blood, since under these circumstances the hitherto depressed pressure rises, as does also the bodily heat.

This curious fact must depend on some organic changes produced by the digestive ferment.

4. This drug reduces normal temperature apparently by influencing both production and dissipation.

5. Antifebrin in fever chiefly reduces the high temperature by decreasing heat production, and is therefore a valuable antipyretic.—*American Lancet.*

Treatment of Infantile Diarrhea.—Mr. Cadet de Gassicourt, physician of the Hospital Trousseau, recommends strongly, as a preventive, nursing, if possible, up to the age of twelve to sixteen months, and, prolonged nursing being impossible, convenient selection of milk and food.

Diarrhea having appeared, the first prescription to be made is diet. In light diarrheas be satisfied with diminishing the frequency of nursing or boles of milk and with adding lime-water or Vichy water, either pure and before each nursing, or mixed with the milk in the proportion of one fifth or one fourth, according to the age of the child. In severe diarrheas the use of milk is completely to be suspended, substituting beef or chicken broth, and in certain cases a hen soup in twenty-four hours.

At the beginning of the diarrhea it is useful to disembarrass the intestine by means of a purgative (one to two grams of castor oil, one to three grams magnesia, associated with fifty centigrams to one gram, fifty bicarbonate of soda; ten to fifteen centigrams calomel; or infusion of henoch in fractional doses, ten centigrams ipecac in sixty grams water). This infusion is especially convenient when the stools are muco-sanguineous and accompanied by tenesmus.

If the stools continue liquid, it is necessary to resort to opiates (one drop laudanum of Sydenham or four drops paregoric elixir of the Codex). Mr. Cadet prefers the paregoric elixir, because it is more easily handled (four drops elixir being equal to one drop laudanum) and because it is of a more pleasant taste. To the opiates to be added the astringents (fifty centigrams to one one gram extract of ratanhia in sixty grams water for an enema); vomitions to be counteracted by cold beverages and especially by ice given in small fragments.

In infectious diarrheas Mr. Cadet does not recommend the use of creosote, of benzoate of soda, and of resorcine. He has obtained effective services from the following formula:

Sugar water....................20 grams;
Laudanum of Sydenham...½ to 2 drops;
Diluted hydrochloric acid...2 drops;

to be given in a single dose. This dose to be repeated several times per day, according to indications.

In case the preceding remedies should fail, it can't be avoided to resort to the old method: *arresting the intestinal flux and combating the collapse.*

The first one of these indications to be satisfied by means of one to two per cent nitrate of silver in sixty grams water as a portion or enema (Rilliet and Barthez), by the application of opiated enemata (one to five drops laudanum in one hundred grams water) or the ipecac enemata (five grams in one hundred grams water).

The second indication to be satisfied by one of the following means: alcohol, subcutaneous injections of ether (one to two grams) hot and sinapized baths.—*Revue ete Clinique et de Therapeutique.*

Chlorosis and Heart Disease.—Excessive anemia being present, and the heart not being hypertrophied, the diagnosis of the cause of heart murmurs is frequently very difficult. M. Duclos has returned to this battle field of clinicians, and sums up his conclusions in the following propositions: In true chlorosis, no matter the number and site of the cardiac murmurs, the basic murmur is never absent, and is most often systolic. In true chlorosis the carotid murmurs, varied and more or less marked, are always present. In genuine chlorosis the bruits are generally more intense and more extensive than in heart disease, and are markedly out of proportion to the circulatory disturbance; further, the cardio-pulmonary circulation remains free, and any disturbance in it indicates the persistence of a valvular lesion, and generally of the mitral valve. We do not join issue with M. Duclos in the general tone of his arguments, which are sound enough so far as they go; but the most frequent clinical difficulty is not so much the differential diagnosis of severe chlorosis from heart disease, as it is the distinction or discovery of valvular lesion in the presence of less marked anemia.—*London Lancet.*

Parenchymatous Nephritis in Childhood. Authors are not in accord on the subject of the frequency of chronic parenchymatous nephritis in childhood. Many have maintained that the affection is a rare one, and some hold that it is by no means uncommon. Satisfactory statistics on the question are still a desideratum. Baginsky and Ferreira are two of the most recent authors who believe that the disease is not infrequent. The latter considers that diseases of the skin, especially of an impetiginous or ecthymatous character, and involving an extensive cutaneous area, are frequent causes of this form of Bright's disease. The treatment which has proved of most value was the use of astringents of tannin, perchloride of iron, iodide of starch, and diuretic salines, which agents increase the quantity of urine and diminish the albuminuria. Rectal injections of cold water were also employed with benefit; and inhalations of oxygen should not be forgotten, according to Jaccoud and Ferreira.—*Ibid.*

LOCAL INJECTIONS IN TUBERCULOUS JOINT DISEASES.—Kolischer was led to the method which he describes by observation of the processes of spontaneous cure in tuberculous joint disease, by calcification and by inflammation excited by traumatism. Both these processes are excited by the injection of a concentrated solution of calcium phosphate at the seat of the disease. The solution is made as follows: seventy-five grains of neutral phosphate of calcium are dissolved in twelve ounces of water, and phosphoric acid is added until perfect solution is obtained. Then nine minims of dilute phosphoric acid (Austrian pharm.) are added, with three ounces more of water. The whole solution is sterilized by boiling and injected into the fungus mass by means of a syringe with a platinum needle. The joint is dressed with gauze impregnated with a solution like the above, except that about ninety minims more of dilute phosphoric acid should be added to it. The pain which follows the injection is very severe, and it is generally necessary to use morphine There is much fever often, and sometimes a good deal of induration about the joint is present, but it disappears. The skin breaks in many successful cases, but the dressing is continued and a calcification and cicatrization go on. Very favorable results are claimed for the treatment by Kolischer and Del Torre.

THE URINE IN TABES DORSALIS.—The following facts are set forth by MM. Livon and Alezias as the result of a series of researches on the urine of patients affected with an apyrexial disease of the cord, namely, tabes dorsalis: A tendency to diminution of the urea eliminated in the twenty-four hours; a diminution in the total daily discharge of phosphoric acid, with a tendency to proportional augmentation of the discharge of earthy phosphates; a great variation in the elimination of chlorine, with a bias in favor of hyperchloruria. Intravenous injections of tabetic urines appear to be sufficiently toxic in their action, since it has been found that from twelve to twenty-four cubic centimeters of urine per kilogram of body weight of animals was sufficient to kill dogs.—*Lancet.*

REFLEXES IN NEWLY-BORN CHILDREN.—Dr. Julius Farago has published in the *Gyógyázat*, a Hungarian journal, as quoted in the Lancet, some observations he has made in Prof. Ebstein's clinic in Prague, on the reflexes of newly-born children. Advantage was taken of the lax state of the muscles of the lower extremities while the child was at the breast to test the patellar reflex. Altogether one hundred and seventeen infants under sixteen days old were examined. In all these the patellar reflex was present on both sides, but the strength of the jerk varied a good deal. In some cases there was merely a slight, short, sudden extension of the leg. In others the jerk was stronger and followed by a series of oscillations. Frequently a transient clonic contraction of the quadriceps was noticed. In some cases a slight contraction was observed in the quadriceps of the opposite leg. Dr. Farago found that the knee reflex is stronger immediately after birth than during the second week. Premature and badly developed children, weighing less than three thousand grams, have a weaker knee reflex than children born at term weighing more than three thousand grams. The abdominal and eyelid reflexes were also noted. The cremaster reflex was present in all the forty-nine male children except nine, and in these the testicles were high or else hydrocele was present.

BULLET WOUND OF THE LIVER.—At the meeting of the Clinical Society of London, on October 14th, Dr. Lediard (Carlisle) contributed this case, which was one in which a constable was shot through the body at a short distance, while pursuing some burglars. The bullet entered the right side of the chest, between the seventh and eighth ribs, a little to the outer side of the mammary line. Deep collapse resulted, during which the bullet was extracted from the right loin, just over the last rib, and two inches from the spine. It was believed that the constable was leaning forward to catch a man in front of him when he received his wound. Jaundice supervened, and on the ninth day the extraction wound in the back discharged a large amount of bile-stained fluid, and continued to do so to a less extent for some weeks. Evidence of air in the right pleural cavity to a limited area was also present, and subsequently an empyema formed and discharged freely a large amount of pus through the bronchi. Elevation of temperature lasted more or less for forty-eight days, but at the end of three months the patient was convalescent, and had made a complete recovery, being still in the Cumberland police. The course of the bullet was, probably, through the convex surface of the liver, the diaphragm being perforated twice, and the lung grazed. The presence of bile was ascertained by chemical tests, corroborated by Dr. Walker, public analyst, Carlisle. The microscope also gave clear evidence of a wound of the liver tissue. The bullet weighed three and a half drams.—*British Med. Journal.*

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. IV. SATURDAY, DECEMBER 10, 1887. No. 12.

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A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year, postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

Books for review, and all communications relating to the columns of the journal, should be addressed to the EDITORS OF THE AMERICAN PRACTITIONER AND NEWS, Louisville, Ky.

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CANCER AND CANCEROUS DISEASES.

In the Morton Lecture, recently delivered before the Royal College of Surgeons, of England, Sir James Paget pointed out a number of interesting and instructive analogies between the processes of plant and animal life, as calculated to throw light on the nature of cancer, and also some interesting speculations as to a future possible cure for it. A part of these analogies we have already referred to editorially in a recent number of the PRACTITIONER AND NEWS, but they will bear repeating in the connection given them by the great English surgeon.

Mr. Paget contends that the whole study of tumors may, indeed, find admirable illustration in vegetable pathology. The xylomas or tumors of homologous woody tissue, he compares to the benign tumors found in human pathology, while the many varieties of galls may be taken to represent malignant growths. The xylomas are outgrowths from the healthy wood that seems to have received no injury, and are apparently developments from adventitious or latent buds, while the galls are morbid growths that result from the stings of various insects, just as benign growths in the human organism are developments of what may be considered latent embryonic tissue, and the cancerous and other essentially harmful local manifestations of disease may be considered as indicating the results of irritation by a specific virus. The galls are all the result of the stings of insects, and they amount in all to more than a thousand varieties. Each insect, with an instinct as unfailing as natural law, deposits its eggs with the accompanying virus on a leaf or other part of the very plant in which the right kind of gall can be formed. Each virus requires a susceptible and fitting place or substance. Something like this Paget believes to be the case in cancerous diseases. Cancer requires first the system capable of the proper reaction, the condition of blood, etc., in which cancer can flourish, and then the specific virus that alone can produce cancer. In this position the eminent teacher seems to be thoroughly established and fortified.

But, leaving the exact line of argument of Mr. Paget, it is worth while to ask how much of the method and sequence of reaction is due to the virus in all infectious diseases, and how much to the capabilities of the system for reaction.

In the first place, a benign woody tumor is not the exact counterpart of a benign tumor in animal tissues. It is the function of many plants to form buds any where beneath the bark, and of some in any cells, even in the leaves. These adventitious buds might any where become aborted shoots or twigs; they are the counterparts of true moles among animals, or possibly of dermoid cysts. The illustration drawn from galls has a better application. In these instances, then, we might inquire what part is performed by the virus, and what part by the organism? Does the virus which the insect deposits as it lays its egg enter into the vital forces of the tree to determine a gall of a certain shape, size, and chemical constitution, or does the tree or plant of itself possess the inherent power of reacting in a particular manner, which results in the production of a certain character of gall or other growth? Taken in the human body, does the virus of smallpox join in the definite processes that result in fixing the duration of the fever, the time of the outbreak, and all the rest of the orderly processes observed in a case of smallpox, or do these powers belong to the system, to be called forth in different ways according to the nature of hurt received by it.

We think they belong to the organism and not to the virus. The virus is almost passive. The case seems to be not unfitly represented by the siege of a fort. An enemy approaches to take it, and upon the movements of the enemy, upon the nature of the attack, will depend the character of the defense. Which cannon shall be fired, where a ditch shall be dug, where pickets shall be placed, where a mine shall be exploded, all depend upon the position of the enemy, but the people in the fort do all of these things of themselves. As many obvious means of defense as the human organism possesses, as many words, as many different possible movements, either of definite expression or otherwise, they probably do not all approximate in number and variety the vital reactions possessed by the cells of the body. Cancer then, in our opinion, as it presents itself to sight is an effort of the system to throw off a foreign hostile substance of which we know so far absolutely nothing. It may be a microbe, it may be degenerate bioplasm, or it may have some other nature, still only this we know, it is hostile.

It would be unprofitable, perhaps, to carry out the long train of speculation to which this subject might lead. What we want most is a cure, a specific, as pointed out by the great lecturer, like that which mercury furnishes for syphilis and quinine for malaria. And, whatever else is done, something in the way of medication should be tried for every cancer. If it can not be operated on, something not already a proven failure should be tried for its cure; if it can be or has been operated upon, then for the prevention of its return.

FECAL ANEMIA.

Sir Andrew Clark in a recent article describes a form of anemia amounting often in young girls to chlorosis, and in a large proportion of cases curable by careful regulation of the bowels.

Observation abundantly proves that many derangements of health are due to the accumulation of feces in the large intestine, due in all probability to resorption of deleterious matters into the blood, and also the prevention of the execretion of such matters by the coats of the larger intestine.

In view of the fact that certain changes in the circulation of the blood, as manifested in the pulse, are found in many cases of anemia, it would be well to make a careful distinction between the cases of anemia due to the resorption of fecal exhalations and those produced by other causes.

Hypertrophy of the heart, with tenseness of the pulse, is found with considerable constancy in anemia. This has been supposed to be due to the fact that the blood in this condition of system is too poor for the proper nutrition of the tissues, and that these call for an excessive supply of such blood to make up what is wanting in quality. With much more reason could we look for a tense pulse and hypertrophied heart in anemia due to fecal resorption, for here the blood is not only deficient in quality, requiring that a relatively large quantity of it be sent to the tissues, but it is also vitiated and rendered repulsive to the arterioles which offer a resistance to its passage, and so throw increased labor on the heart.

It is doubtful if mere rapid movement of the heart muscle would result in its hypertrophy. The woman who knits may move her arms much more rapidly than a man who splits rails, but the rail-splitter will exhibit much the greater degree of muscular hypertrophy. The roustabout, who carries sacks and other freight in loading and unloading boats, will also have greatly hypertrophied muscles, though his movements are slow. It seems to be the unusual amount of resistance that causes hypertrophy of muscle. This, as regards heart disease, is borne out by the absence of hypertrophy in the few recorded cases of enormous rapidity of the heart-beat. The capillary circulation in such cases being free, the pulse is not tense, and very little strain is put upon the heart.

It appears, then, that quite a long series of troubles may result from a state which to the looker-on seems so simple as constipation, these troubles being both mental and physical.

Dr. Clark recommends for anemia and chlorosis in young females a careful treatment of the constipated condition with laxatives and iron together with strict regard to proper hygienic measures.

THE SPREAD OF LEPROSY.

Within a brief period past the civilized world seems to have been awaking to a realization of the fact, that instead of leprosy proving to be the harmless curiosity that a few years ago it was held to be, it has in truth become a dreadful menace, calling for close attention and strong defensive efforts.

The Practitioner and News has from the first insisted that leprosy is a contagious malady, and that at any time, should telluric or epidemic conditions favor it, the world may again witness such melancholy scenes as were only too common in the middle ages. It is not necessary now to repeat arguments to prove its contagiousness. The abundant evidence of this fact, brought to light in the recent past, has silenced all opponents. It remains now only to show how extensively it is spreading, and to make known the symptoms, so that early diagnosis may enable men to guard against the danger of infection. Leprosy, perhaps the most dreadful of all diseases, may in the near future require to be combated with more perseverance than has been exhibited in the history of any other contagious disease whatever.

Notes and Queries.

The Relation of Medical Ethics to Popular Journalism. — We have repeatedly drawn attention to one of those evils incidental, shall we say, to a somewhat over-ripe civilization, with which the public mind is becoming increasingly prone to divert itself. This is the practice of self medication—a practice which we are assured will make but little headway among a rational and simply living population, in spite of the copious fair speech of those who foster it, while it is denounced as it should be by the common voice of the medical profession. Faith in the reason, nay in the very instincts of mankind, and in the better judgment of our professional brethren, forbids us to doubt that this disguised enemy of health will eventually stand forth as a revealed imposture. This consummation is, however, the hope of an enlightened future. Meanwhile the possibilities of present mischief can not be ignored. That these are not hidden from the majority of practitioners we are well aware, as also of the fact that many intelligent persons outside our own calling have a general sense of their existence, though the feeling is by no means as widely diffused as it ought to be. We are particularly conscious of what, at all events, appears to be a very imperfect perception of these possibilities on the part of some medical men.

A feature in the recent development of literature has been the appearance of popular journals of a quasi-medical character, and the practice on the part of some of our lay contemporaries of devoting a part of their columns to the details of medical treatment. The function of these periodicals consists in an endeavor to enlarge the sphere formerly occupied by the time-old, though we can not say time-honored, agency of nostrums. They assume to administer, not medicines indeed, but medical advice to the public, one and all, for one penny! There is little concern for the greatly varying condition of the great army of patients—for the pulse which throbs in one and flickers in another, for the whole heart or the maimed heart, for the sound or loaded kidney, for the blood-vessels, whether they be well-nigh invulnerable in the vigor of untried youth or decaying at the brain after a life's worry. None of these things matter; the chloral, the colchium, or the opium goes down all the same; there is the rest or the horse exercise, the full or the light diet at choice (the patient can have which he chooses, for he must know what is wrong with him), and the proprietor and the publisher are the gainers. This is what we may call the likeness in plain clothes of the newest departures in journalistic literature. Thus displayed, perhaps it may shock some, and the fact that it has not hitherto awakened more generally a natural instinct of caution is simply due to a wide-spread misunderstanding of its true meaning. If this be true of the public generally, is it remarkable that it should be in some measure true of a limited number of medical men, and--we say it with much regret—of some whose intellectual grasp and whose high sense of professional honor might have saved them from what is seen on its exposure to be so great an error? But here, again, we are certain there has been misunderstanding. The members of our profession are sometimes accused of a want of business capacity, and the accusation is partly true. Particularly is it likely to be true of those who are by their very scientific eminence debarred somewhat from the concerns which constantly occupy the purely practical man. It may be that we are to trace in this fact the cause of the regrettable indiscretion which has appended to the literature in question the nominal sanction at least of reputable practitioners. Such men would never commit themselves to such a course with their eyes open. It is to our mind far more probable that, having regard to the fact that certain general principles and certain details of hygiene or common-sense domestic management may be freely expounded without risk of misconception, they have allowed themselves to be announced as public instructors in medicine and surgery. Their distinct intention is doubtless to stop at the limit they assign themselves, but they forget to question whether this is also the design of the lay editors who solicit their literary assistance. Yet this matter is an all-important one, and there is no guarantee that they will be able to stop in their present course. There is also another consideration to which we wish to direct attention. It is this. The ground which is to be covered by the new teaching is no neglected field. It is already supervised by careful and competent visiting practitioners, not a few of them equally skillful in diagnosis and successful in the execution of practical detail. Is it wise to substitute for the care of these acute observers, working on the spot, the comparatively mechanical action of oracular dicta delivered through the popular press? We are certain that it is not, but that here we have a proceeding related, and not remotely, to the practices of the nostrum system, and, like them, of more than doubtful advantage to the public. Certain names, toward which we feel as medical men a brotherly attachment, have gained nothing and have given nothing toward the honor of our profession by being found printed with ample fullness of description on broad sheets intended for universal distribution. Here, beyond question, we have advertisement on an extensive scale, and prejudice is evidently done to others equally qualified for public recognition, but deterred by a sense of justice and professional propriety from accepting it under these conditions. We can not but think that in many cases, where names and explanatory directions have been published with the same liberal disregard of professional usage, the practitioners have not been consulted in the matter.

In the foregoing remarks we have endeavored to intimate what we conceive to be the true line of action to be adopted by medical men in the face of tendencies which, however permissible in commercial life, are incompatible with the safe and honorable conduct of medical practice. The temptation to fall in with such tendencies is, we grant, in the present age of fierce competition and general depression, considerable. We would strongly counsel, however, that the temptation should be resisted.—*London Lancet.*

Doctor Middleton Goldsmith, once a prominent citizen of Louisville, a professor in the Kentucky School of Medicine, and during the war a leading surgeon, having been at one time on the staff of General Grant, died on the 26th ultimo, at Rutland, Vermont, to which place he removed from Louisville soon after the war. Dr. Goldsmith inaugurated the pavilion hospital service during the war, and gained a large share of credit by the introduction of the use of bromine in the treatment of hospital gangrene.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

VOL. IV. [NEW SERIES.] LOUISVILLE, KY., DECEMBER 24, 1887. NO. 13

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

RECENT ADVANCES IN OBSTETRICS AND GYNECOLOGY IN GERMANY.*

BY E. S. M'KEE, M. D.

It has always been a matter of the greatest importance to diagnose early carcinoma cervicis uteri. It has gained in meaning recently since the operative treatment of cancer of the uterus has rendered its cure possible, provided the case be recognized at a sufficiently early stage. The known symptoms are numerous, yet the difficulty will always exist of diagnosing beginning cancer from erosion. Stratz has thoroughly studied this subject, and gives four important points:

1. The diseased surface is every where sharply separated from the sound tissue; it never gradually changes from one to the other.
2. A difference between the level of the diseased and healthy parts is always discernable.
3. The cancerous portions invariably have a yellowish tint.
4. The malignant parts show small yellowish-white glistening raised points, at least in certain places.

Among many German obstetricians absolute non-interference is the rule in the third stage of labor.

The teachings of Credé are tending toward the entire letting-alone of the genitals during labor and the days succeeding it. This distinguished obstetrician, unless some abnormality presents, does not make a vaginal examination at all. His diagnosis is entirely made by external palpation and manipulation. Unless there are positive indications therefor, he teaches that for eight or nine days after labor one should neither examine, wash out, nor do any thing to the genitals.

In the excessive vomiting of pregnancy Credé recommends the administration, every five minutes, of teaspoonful doses of nourishment; preferably iced milk, the patient lying absolutely quiet and taking it through a glass tube. Chazan has reported an interesting case of this complaint, in which no abnormality could be discovered about the patient. She was inconsolable, however, at the idea of being pregnant. She was put under ether and made to believe that the fetus had been removed. The vomiting ceased from that time. This case has led Chazan to believe that perhaps in most cases hyperemesis gravidorum was due to some affection of the nervous system or of the mind, and not to an abnormality of the genital organs as some authors believed.

Hypnotism or syggignoseism as a means of doing away with the pains of labor, introduced by Pritzel, of Vienna, seems to be gaining some followers among those who possess the required power.

The question of antiseptics may be fairly stated, as follows:

It is the practice of the majority to disinfect the hands with a $\frac{1}{1000}$ solution of corrosive sublimate, external genitals, $\frac{1}{2000}$, vagina or uterine cavity, $\frac{1}{4000}$. The vagina and particularly the uterine cavity are washed out only on the strongest indications, either just after birth or during confinement to bed. The amount used to irrigate these cavities is about two liters. In uterine *post partum* hemorrhage from atony a solution of $\frac{1}{3000}$ is used. The sublimate solution is considered as contra-indicated in women suffering from anemia, phthisis, general cachexia, or diseases of the kidney and digestive organs; also in those having extensive wounds of the vulva, or taking mercurial preparations. It is found that vaginal or intra-uterine irrigation is frequently followed by absorption of the injected liquid, especially if its escape be in any way impeded. When this occurs mercury can be quickly detected in the feces.

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*Read before the Cincinnati Academy of Medicine.

The solution ($\frac{1}{1000}$) is only injected into the uterus in severe cases, as tympanites of the uterus, putrefaction of the fetus in the uterine cavity, or septic puerperal fever. Not more than one minute's time is allowed for the injection, which is followed by copious injections of distilled water. In cases where there has been an expulsion of the macerated fetus, a solution of $\frac{4}{1000}$ is used. This is also done in the endometritis consecutive to the expulsion of the fetus in a premature delivery. This solution is of service in puerperal endometritis accompanied by fetid vaginal discharge, and should be followed by copious injections of water. For the disinfection of instruments carbolic acid is in general use. Angerer, of Munich, has claimed that the sublimate solution may be rendered permanent in ordinary distilled water by adding to the water as much by weight of common salt as there is present corrosive sublimate.

The following are the rules for the physician who wishes to visit the laparotomies which are performed at Olshausen's clinic:

1. On the day of the operation, not to come in contact with infectious material of any kind.
2. To come to the operation freshly bathed and in clothes which have not been worn in the sick-room.
3. To touch no sponges, instruments, or any thing which is used in the operation.
4. To be there promptly at the appointed hour, as at the beginning of the operation the doors are closed.

Such were the rules of Schroeder, and are now carried out by Olshausen and Mentin. Gusserow is not so strict with his visitors.

The question is often asked, how soon, after coming in contact with septic material, is the physician justified in attending a case of labor? The reply in Vienna is, as soon as you have time to change your clothes and go through a thorough washing with antiseptic solutions of a reliable character. In the clinic of Carl Braun, in the Allegemeine Krankenhaus in Vienna, the assistant has charge of the wards and conducts personally all complicated cases. At the same time he is constantly giving instruction on the cadaver to the students and practitioners taking operative courses. He is often summoned from the operating-table in the pathological building to make a forceps delivery. He would proceed to a most careful washing of the hands and arms, not only washing but scrubbing them and doing it thoroughly, then dips them into a solution of the permanganate of potassium, then into a solution of muriatic acid. In the second clinic the hands are cleansed by a powder consisting of ground kernels and shells of bitter almonds. This seems to possess great cleansing and absorptive properties.

The application of a four-per-cent solution of cocaine to the upper part of the vagina and cervix during dilatation and the ostium vagina and perineum during the expulsive effort is followed by good results, sometimes preventing pain for twenty minutes.

The application of axis-traction forceps, according to Carl Braun, would result in the bringing of deformed children through deformed pelves in many instances, where, in the absence of these forceps, craniotomy would be necesssary. He frequently uses the Simpson forceps modified by himself, which he terms tri-form forceps. Thus modified, he considers it can be used in the high or low operation, and indeed on every possible occasion in which an instrument is indicated.

The conservative cesarean section of Sänger is a method which is rapidly gaining ground. Favorable and constantly improving reports come from all parts of Germany, and the increasing success is very gratifying to those who confidently expect this operation to ultimately displace craniotomy in most instances. Leopold, whose statistics are as satisfactory, probably, as those of any one, recommends complete closure of the abdominal cavity by the continued suture after the protrusion of the uterus. He controls the hemorrhage after the cut into the uterus by the rubber tube or manual compression. He takes great care that the uterine cavity be entirely clear of decidua. The uterine sutures must be very exact in their coaptation. He stimulates contraction by manual massage of the sutured uterus.

Prof. Gusserow, of Berlin, follows this plan when operating. He commences the excision three finger breadths below the umbilicus and continues it to three or four inches above the symphysis pubes. The abdomen is opened, the uterus presents, and the walls close behind it. The lower half of the uterus below the child's head is surrounded by a rubber tube, the size of the finger, which is held there. Sutures are passed through the abductor muscles to prevent the protrusion of the intestines, which will answer unless there is much vomiting. If the bowels protrude, retain them with warm cloths. The uterus is opened with an incision beginning near the fundus and extending down to the inferior uterine segment to the place where the peritoneum is movable. If the placenta lies in the line of the incision a large amount of dark blood will burst forth; cut through this, and the liquor amnii will gush out. Drawing on the rubber band surrounding the uterus will control any hemorrhage which may arise from the uterine incision. The child is then removed; the uterus generally remains relaxed during the remainder of the operation. The placenta and membranes are removed from the uterus and the cavity is strewn with iodoform. He takes about three silver sutures to close the incision; these inclose muscle without decidua; sixteen silk sutures are then applied, which penetrate the peritoneum only. Resection of the muscles is sometimes, but not always necessary; if the peritoneum extends some distance over the muscles, it is not. If hemorrhage is now present, stop it by ligating the spouting arteries. If the uterus remains relaxed, cause it to retract by applying sponges soaked in hot sublimate solution. Powder the suture line with iodoform, replace the uterus in the abdominal cavity, and close this by suture. So far, fifty cases of Sanger's operation have been reported with the following results: For the mother, recovery in thirty-six cases, or seventy-two per cent; death in fourteen cases, or twenty-eight per cent. Result for children: Born alive, forty-six, or ninety-two per cent; died, four, or eight per cent. Germany had thirty-four, with thirty recoveries and four deaths; children, thirty-two living and two dead. Austria five cases, with two recoveries and three deaths; children, five living and no deaths. United States, six cases, two recoveries and four deaths; children, four living and two dead. Italy, three cases, two recoveries and one death; children, three alive. Russia, two cases, no recoveries; children, two living. France, one case, one recovery and one child alive. It is easy to see that Germany is far in the lead. The best reports come from Leipsic and Dresden. Of the seven cases done in Leipsic, there were seven recoveries of mothers and seven living children. Of the fourteen cases in Dresden, thirteen recovered and fourteen living children were born. The first fifty cases after Porro's method resulted in twenty-one recoveries, or forty-two per cent. After Sanger, the first fifty cases resulted in thirty-eight recoveries, or seventy-two per cent. After Sanger, fourteen died, or twenty-eight per cent. After Porro, twenty-nine died, or fifty-eight per cent. This shows a difference of thirty per cent in favor of the conservative method.

A subject which has received much merited attention of late from the Germans is vaginal total extirpation of the uterus. Sufficient material has been collected during the past ten years to decide whether this is a practicable operation, and whether it gives permanent and favorable results which lead us to consider it superior to any treatment of the cancerous uterus up to the present time. Vaginal extirpation has obtained decided recognition in Germany, and the purely vaginal operation of Czerny, Billroth, and Schroeder has succeeded the procedure of Freund, which was a combination of the vaginal and abdominal methods. In 1881 Olshausen collected forty-one cases with twenty nine per cent mortality. In 1883 Sanger one hundred and thirty-three cases with twenty-eight per cent mortality. In 1884 Engstrom one hundred and fifty seven cases with twenty-nine per cent mortality. A Martin, up to the close of 1886, had collected three hundred and eleven cases with forty-seven deaths, or fifteen and one tenth per cent. Thus we see that with increased experience the mortality is decreasing. The operation now shows better results as to immediate mortality than removal of the breast for cancer.

Dr. Martin, who has attained a wonderful skill, may be described in operating as follows: The bowels are thoroughly emptied, the vagina disinfected by an antiseptic irrigation, the patient placed in position on her back and hips and put under chloroform. The vault of the vagina is exposed by means of a speculum and side pieces; the cervix seized by bullet forceps on its posterior border and drawn forward as far as possible toward the symphysis pubes. This stretches the posterior arch of the vagina; the insertion of the vagina can be very nicely determined. He then makes an incision along the whole length of the insertion to get into Douglas' *cul-de-sac* as quickly as possible. This he frequently attains at the first cut; this accomplished, he enlarges the cut so the fore finger of the left hand can enter, and then with a small needle very much curved he sews around the entire border of the cut in the vagina. He generally uses four or five of these sutures, which unite the peritoneum of Douglas' *cul-de-sac* to the vaginal wall, and all hemorrhage at this point is stopped. He next sews up the stump of the broad ligament, using large needles with double threads. These threads must also unite the peritoneum with the vaginal wall. Generally he uses three of these on each side, by means of which he firmly unites the floor of the pelvis and the vagina as far as the anterior border of the cervix, thus more securely controlling the vessels which pass through before they are cut. To separate the floor of the pelvis as far as its anterior border from the cervix, the knife is thrust directly forward along the cervix on both sides, this lies entirely free, that is, as high as the fundus. After all hemorrhage has been stopped, he cuts around the anterior periphery, at the same time drawing the uterus forcibly backward and putting the anterior vaginal wall on the stretch. Having cut through the vaginal wall he separates the bladder with his finger nails so far as he can discover any attachment. This is found to vary from one to five centimeters and even more in thickness, and it is sometimes necessary to use the knife in order to separate the firmest bands of union. The suture to the vaginal wall of the surface which has been separated must be made here as exactly as possible. Here four sutures are usually sufficient to stop the hemorrhage and restore the continuity of the vaginal wall. When the hemorrhage has entirely ceased he once more grasps the posterior portion of the uterus which has been separated, and, having determined the size and mobility of the uterus, seizes the posterior lip with a Museaux forceps in order to draw it forcibly forward. A Sims' speculum or a side holder placed in Douglas' *cul-de-sac* protects the fundus as it is drawn down from catching on the posterior border of the wound. By making successively fresh grasps with the Museaux forceps the posterior wall of the cervix and the fundus are guided into the opening. If the uterus is freely movable and not too large, this procedure is simple, otherwise it is sometimes tedious. In some instances an advantage is gained by pushing the uterine cervix up behind the pubis. In other cases a blunt sound run up into the uterine cavity is quite an assistance. A disadvantage in using this instrument is, that the posterior border of the uterus is often bored through by this instrument and the contents of the uterus escape over the surfaces of the wound. As soon as the fundus of the uterus presents itself, it easily follows through the opening if the attachments have been well separated. In some cases the use of the knife is necessary here. Excessive hemorrhage often accompanies the further detachment of the uterus while in this inverted condition and renders it very difficult. He isolates the insertion of the broad ligaments to the organ, displays the tubes and that portion of the broad ligament lying near them, in order that he may tie it in one, two, or three segments, which is accomplished on both sides before he cuts away the uterus itself. There still remains a thick mass of tissue to be separated at the sides of the lower segment of the fundus. The separation of the uterus from the bladder is easily accomplished if one always works close to the uterus. Martin prefers to sew the peritoneum and vagina together before completing the separation, thereby not allowing the peritoneum to slip beyond control. After completing the left side, the separation of the broad ligament stump is attained. Here the control of the hemorrhage and the fixation of the stump is also secured by sutures before the uterus is completely freed. The loops of intestine seldom come down in sight, or to the seat of the incision. If they do come in the way, protect by laying a sponge over them. The ovaries and tubes often come down into the wound, especially when they are much enlarged. In such cases they can be ligated and cut away with little difficulty. Thus far a continuous stream of a weak solution of carbolic acid suffices to keep the wound cleansed. Recently it is his practice to use two or three small sponges to clean Douglas' *cul de-sac.* These are secured by long bullet forceps and are drawn over the edges of the wounds to make them more safe. He has not experienced excessive hemorrhage following extirpation of the uterus. He inserts a thick drainage-tube which is held in place by a cross-piece into Douglas' *cul-de-sac.* After ascertaining the condition of the bladder, the operation is concluded. The duration of the operation varies from thirty minutes to two hours, according to the difficulties encountered. Sometimes the hemorrhage is exceedingly small, not exceeding fifteen grams. It is especially great if the neighboring tissues are diseased, whether they are old cicatrices from a former inflammation or one just commencing. For the prompt control of this hemorrhage a considerable experience in the use of the needle is necessary. If easily done, he recommends the removal of the tubes and ovaries. It is not the custom in Germany, as in France, and to some extent in England, to use the clamping forceps to restrain the hemorrhage from the ligamenta lata. Martin says you can tell that the cancer is limited to an organ by its having a layer of healthy tissue about it. Leopold says it is not always possible to tell whether the disease is limited or not. The prognosis is quite as favorable as the supravaginal operation, and is rapidly supplanting it.

CINCINNATI, O.

NOTES ON TWO CASES OF EXOPHTHALMIC GOITRE.

BY J. F. BARBOUR, M. A., M. D.
Lecturer on Nervous Diseases at Hospital College of Medicine.

Some time ago I reported the almost complete cure of a case of exophthalmic goitre by the use of the galvanic current. I have seen this case recently and there has been no return of the symptoms.

I have the pleasure of reporting a similar case more successfully treated. Miss Katie F., a large German girl, and apparently in perfect health, came under my treatment last winter. At that time there were two tumors on either side of her neck, lying between the sterno-mastoid muscles and the trachea. These tumors were soft, pulsating, and on auscultating over them a bruit could be heard. On the right the swelling was as large as an orange, on the left about the size of a walnut. Her eyes were prominent, the right one projecting somewhat more than the left. She complained of excessive palpitation of the heart, shortness of breath, and hot flushes, which were more pronounced on the right side. I find no mention of the dyspnea, or of the vaso-motor disturbance, in any of the works which I have consulted. The dyspnea was brought on by exertion or excitement; the flushes were very irregular in their occurrence and duration, sometimes coming on every afternoon with the regularity of hectic, and lasting about two hours. At other times they would intermit for several days, or would appear in the morning, lasting from ten to fifteen minutes. They were accompanied by a sense of great heat. Both these symptoms were marked in my first case.

In the second case, as in the first, there was nothing in the personal history which furnished a clue to the etiology of the disease; but there was some evidence of the existence of a "hereditary neuropathic predisposition," that etiological scape-goat of neurologists. Miss F.'s father had a card from the Soldiers' Home, at Dayton, diagnosing his case as one of incipient lateral sclerosis; but after a careful examination I could find no symptoms of spastic paralysis or locomotor ataxia. The knee-jerk was neither exaggerated nor absent; the gait was neither spastic nor ataxic; there were no contractures, no reflex iridoplegia, no bladder symptoms — in short, nothing that pointed to sclerosis of the lateral or posterior lateral columns, or any other organic involvement of the cord. There was, however, an idiopathic spinal neurasthenia.

The treatment consisted in the application of the constant current over the site of the pneumogastric nerve in the neck and directly through the tumors. Besides this, she was directed to wear a belladonna plaster over her heart, and various tonics were given internally, but without apparent benefit. She improved slowly but steadily under this treatment; her pulse, which at first was 108 to the minute and variable, becoming slower and more regular, and the tumors gradually decreasing in size. The use of the current was several times interrupted during the course of the treatment, but each intermission was followed by an exacerbation in the symptoms, showing that electricity has a positive curative influence.

After several months of treatment, the pulse-rate was brought down to 80, the dyspnea and palpitation were no longer troublesome, and the tumors were firm to the feel and about half their original size. I then performed electrolysis with the assistance of Dr. H. A. Duvall, who has a very complete electrical outfit. The negative pole was armed with a needle, insulated to within a quarter of an inch of the end, which was plunged directly into the body of the tumor, the other pole being held in the hand. The current was then turned on slowly, by means of a switch so constructed that there is no break in passing from one cell to another, until fifteen cells were in the circuit. The effect on the goitre was almost instantaneous. In a few seconds it could be felt to liquefy and soften down under the finger, the circumference of the neck being reduced three fourths of an inch at one operation. We operated several times, completely dissipating both tumors. There was very little pain from the operation, and no after-effect. The exophthalmos was somewhat improved. This and a semi-occasional slight flush are the only remaining symptoms. . . .

Friedreich has advanced the ingenious theory that the palpitation is due to dilatation of the coronary arteries from vaso-motor paralysis and the consequent increase in the blood-supply of the heart. The goitre is simply the dilated blood-vessels of the thyroid gland. The exophthalmos has been attributed to dilatation of the intra-orbital vessels; to which Eulenberg adds, increase of the intra-orbital fat.

I think that we may regard the following propositions as established:

1. *Basedow's disease is due to a functional neurasthenia of the cervical sympathetic ganglia, resulting in a dilatation of the blood-vessels controlled by them.* Other examples of a local neurasthenia are found in cerebrasthenia, spermatorrhea, the occupation neuroses, etc.

2. *This neurasthenia may co-exist with general good health, or may be part of a general condition.*

3. *The passage of the constant electrical current through the affected ganglia has a curative effect.*

LOUISVILLE.

THREE SUCCESSFUL CASES OF INTUBATION FOR PSEUDO-MEMBRANOUS CROUP.*

BY W. CHEATHAM, M. D.

Lecturer on Diseases of Eye, Ear, Throat, and Nose, University of Louisville; Eye, Ear, Throat, and Nose Physician, Louisville City Hospital, etc.

My per cent of successes in intubation in diphtheritic croup has been any thing but encouraging. The intubing has in all my cases but two, given immediate and permanent relief to all dyspnea; but every patient except one died of extension of the membrane into the bronchi (a region lower than the tube will reach), or of asthenia, heart-clot, or pneumonia. The tube has done in these cases all that could possibly have been done by tracheotomy, with this advantage, that the operation was not attended with bleeding or mutilation.

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*Read before the Medico-Chirurgical Society, December 2, 1887.

The percentage of successes for intubation for diphtheritic croup, in cases so far reported (between five and six hundred), is a little over twenty-six.

October 23d I was called by Dr. J. A. Ouchterlony to see J. G., who had had croup for some hours. All the distressing symptoms of laryngeal obstruction were present upon my arrival. The usual treatment in such cases had been skillfully applied. After due discussion of the case we decided to intube. While trying to introduce the tube, a perfect cast of the larynx was dislodged and coughed up, giving the patient immediate relief. On the following morning I was again called to see him, and found him in a much worse condition than on the previous night, in fact, he was so far gone that I thought it not worth while to interfere. Dr. Ouchterlony and another physician saw him a short time afterward, giving the same opinion. To my surprise, however, on Monday night at 10:30 I was informed by telephone that the child was still alive, and asked to see him. I found him in even a worse condition than in the morning. With the assistance of two gentlemen present, I introduced a tube with little difficulty; I gave whisky several times hypodermically, and had my assistants to give him all they could by the mouth. With his head over the edge of the bed, and lower than his trunk, the patient was made to draw the liquor through a bent glass tube, thus avoiding the entrance of the fluid into the larnyx.

With very small children I use the soft rubber tube of a nursing-bottle. By this method fluids can be taken without discomfort, and thus one of the greatest objections to intubation is overcome. This patient took food in this way without difficulty. The following Wednesday morning at about seven o'clock, or fifty-six and one half hours after the intubation, the tube with another cast of the larynx was coughed up. The patient, being well of his disease, was discharged on the following Thursday morning. I saw him November 24th, and found him entirely well.

Saturday night, November 19th, Dr. J. L. McDermott requested me to see for him a female child, sixteen months old, with membranous croup. She had been suffering for forty-eight hours, and was almost moribund. With the assistance of a gentleman present, the tube was introduced without the use of a gag. A hypodermic syringe full of whisky was injected into the patient's leg, and she soon showed signs of recovery. I left her, expecting to hear at any moment that she was dead. She was given whisky and milk through the nursing-tube, but did not take it with avidity. She was afterward allowed to drink it from a glass, and to my surprise did so without strangling, and thereafter was fed in this way. The patient improved rapidly, and on Wednesday morning, eighty-four hours after the tube was introduced, it was removed with but little trouble. On November 24th I discharged the case.

The next case is a fatal one; but I think the result should not be recorded against intubation, and I am sure the Fellows will agree with me on hearing the history of the case.

I was telephoned by Dr. Sauter, to go to Jeffersontown to see a case of croup for him, he being unable to go in consequence of an important professional engagement. I found a boy, either six or nine years old (I have forgotten which), suffering from intense dyspnea. The attending physicians (Drs. Marshall and Owen) gave me the following history:

The patient had had, some days before, ulcerative tonsillitis (?) The croup symptoms had been present for about forty-eight hours.

We decided to use the tube, which was introduced without difficulty. I left the string attached to the tube longer than usual because the breathing was not entirely clear. Inspiration was natural, but on expiration a distinct flapping of loose membrane against the distal end of the tube could be heard. After leaving the tube in place for ten or fifteen minutes, having another ready to introduce if necessary, the one in position was withdrawn by the thread attached.

There was immediately a severe paroxysm of cough which expelled a cast of the larynx. After waiting for some time, and the breathing being still comfortably performed, I left. The patient died about eight A. M. the following morning of extension of the membrane to the lungs, the larynx being entirely clear. The tube had really not been used in this case, the patient wearing it but ten or fifteen minutes, and for this reason believing that it should not be put down as a failure, I report it.

Johnnie E., aged four years when Dr. Turner Anderson called me to see him, had been sick one week; croup symptoms for twenty-four hours. This was a very distressing case, the little fellow's chances were considered but few. There was, besides the croup, a small patch of membrane on the pharynx. The tube was introduced with considerable difficulty. The throat was very deep and the arch of the palate very shallow. The larynx was quite small, either naturally or on account of the inflammation. I first tried to get the tube used in children four years old, but failed, and had to put in a tube made for two-year-old children. The tube was put in Monday, December 5th, and removed Saturday, December 11th. I had no difficulty in removing the tube, doing so with the assistance of the mother and father of the child, and without the gag. The child fed nicely, taking all fluids through the nursing-bottle. While trying to put the tube in, the lower lip was wounded, and a diphtheritic membrane soon developed on it. The urine was albuminous. The urine examined was secreted December 8th, three days after the introduction of the tube. No casts in urine. There was at one time a small patch on left tonsil, which remained only a day or two. I looked upon this case as one of diphtheria It is the third successive successful intubation in my hands. This fall I have had three successes in five cases.

The improved method of feeding has improved the per cent of successes in intubation.

Some points in intubation, probably not familiar to the general practitioner, are, that O'Dwyer's tubes reach to within half an inch of the bifurcation of the trachea, and therefore go about as low as the tracheotomy tube; that half the caliber of the tube may become obstructed by secretions without interfering with easy respiration; that with the O'Dwyer tube in position the secretions from below may be better coughed out on account of the ability of the patient to partly lessen the channel of escape of the exhaled air, thereby partly damming it up so, when it does escape, it will do so with more force. A point bearing upon the physiological closure of the glottis during deglutition is of interest in this connection.

I believe that in the physiological act of swallowing the epiglottis is not pressed flat down upon the opening of the larynx like a lid, but that it contracts laterally, as does the larynx during deglutition. And, since the larynx can not execute this motion with the tube *in situ*, the epiglottis, whose lateral contraction is synchronons with it, fails under the circumstances to complete the closure. If this be true, it is easy to account for the passage of liquids into the trachea in patients who attempt to swallow with the tube in place.

O'Dwyer denies that there is such a thing as so-called food pneumonia, as no food has ever been found in the larynx in such cases. Intubation has, since I read my first paper on this subject before this Society, come nearer taking its proper place in the treatment of croup It is acknowledged that some few cases may do better when tracheotomized. These cases, as I state, are but few, and in these intubation should first be tried. How to tell these cases without first intubing is a conundrum.

LOUISVILLE.

THE Crematory of Paris will be opened during the present month. It is estimated that the furnaces will be able to consume 4,500 bodies annually, which is said to be about the number of corpses leaving the hospitals in Paris during the year.

Reviews and Bibliography.

The Throat and its Diseases, including Associated Affections of the Nose and Ear. With one hundred and twenty illustrations in color, and two hundred engravings, designed and executed by the author, Lennox Browne, F. R. C. S. E. Second edition. Pages, x–614. Price, $6.00. Philadelphia: Lea Brothers & Co. 1887.

The aim of the author in the production of this work has been to present by well executed illustrations and vivid description the nearest possible approach to clinical experience.

The wise recommendation is made in the outset, that the student at the very threshold of his studies should make himself entirely familiar with the normal conditions revealed by the laryngoscope and the technique of its employment, as it is only thus that, by the words and performances of his instructors, attention is directed extensively to those diseases of the throat which have been brought more prominently into view by the laryngoscope.

With the vast hospital facilities at his command, and constant employment in the instruction of the finest class of students, it is not to be supposed that the author has left out any thing of interest, or failed to discriminate and give each subject its due importance.

As to the etiology of a majority of affections of the organs with which the work has to do, it is refreshing to meet with an author who has now and then a little doubt as to the universal microbian origin of disease. Still, however, it would have been as rational in some cases to have left the causation to microbes, as to have given us the alternative offered. For instance we are told that the parasitic origin of diphtheria is not probable, but that it is more likely due to a ptomaine the result of putrefaction. As ptomaines are but alkaloidal products of fermentation due to microbes, and are not themselves vital substances, not capable of reproductive multiplication, it would have been much more rational to have left the causation of diphtheria to microbes. On every page is found evidence that the author thinks for himself, and speaks from a careful and extensive experience. To the treatise are appended a large number of formulæ for remedies. The exigencies of the practitioner in this special line must be very great indeed if he does not find in all, light from the pages of this excellent work.

Gynecological Diagnosis, General Gynecological Therapeusis. By R. Chrobak, M. D., Vienna. Electricity in Gynecology and Obstetrics. By Egbert H. Grandin, M. D. With one hundred and sixty fine wood engravings. Pages, 390.

Diseases of the Ovaries. By Dr. R. Olshausen. With thirty-six fine wood engravings. Edited by Egbert H. Grandin, M. D. Pages, 414.

Sterility. Developmental Anomalies of the Uterus, by P. Müller, M. D., Berne; and The Menopause, by E. Bosner, M. D., Graz. Pages, 383.

Diseases of the Tubes, Ligaments, Pelvic Peritoneum, and Pelvic Cellular Tissue; Extra Uterine Pregnancy. By L. Bandl, M. D., Prague. Diseases of the External Female Genitals, Lacerations of the Perineum. By P. Zweifel, M. D., Erlangen. With one chromo-lithographic plate, and eighty-eight fine wood engravings. Pages, 366.

These are volumes five, nine, eleven, and twelve, of the Cyclopedia of Obstetrics and Gynecology, published by William Wood & Co., and constituting Wood's Library for 1887.

We have no hesitation in saying that, taken all in all, these volumes present an instance of enterprise that has not hitherto been equaled in the line of medical publications. The twelve volumes have proven so many surprises, as each answered satisfactorily the question suggested by its predecessor, What can follow and rank with the previous numbers? Whoever has failed to add the Cyclopedia of Obstetrics and Gynecology to his library, has denied himself one of the finest opportunities of becoming acquainted with the treasured knowledge of a most important branch of medicine.

Annual Report of the Central Kentucky Lunatic Asylum, Anchorage, for the year ending October 31, 1887.

Imbibitions of Poisons. By John J. Reese, M. D. Reprint.

A Case of Gastrotomy for Cancer of the Esophagus. By J. Collins Warren, M. D. Reprint.

Transactions of the American Surgical Association, volume the fifth. Edited by J. Ewing Mears, M. D., Recorder of the Association. 8vo, pp. 386; cloth. Philadelphia: Printed for the Association, and for sale by P. Blakiston, Son & Co. 1887.

An Index of Materia Medica, with Prescription Writing, including practical exercises. By Charles H. May, M. D., Instructor in Ophthalmology, New York Polyclinic, and Charles F. Mason. M. D. U. S. Army. Pages, 267, 16mo. New York: William Wood & Co. 1887.

Practical Microscopy: A Course of Normal Histology for Students and Practitioners of Medicine. By Maurice N. Miller, M. D., Director of the Department of Normal Histology in the Loomis Laboratory, University of the City of New York. 8vo, pp. 217; cloth. New York: William Wood & Co. 1887.

Text-book of Therapeutics and Materia Medica, intended for the use of Students and Practitioners. By Robert T. Eder, A. B., M. D., formerly passed Assistant Surgeon, U. S. Navy; Professor of Materia Medica, and Jackson Professor of Clinical Medicine in Harvard University, etc. 8vo, pp. 552. Price, $3.50, cloth; $4.50, leather. Philadelphia: Lea Brothers & Co. 1887.

A Manual of Organic Materia Medica: Being a Guide to Materia Medica of the Vegetable and Animal Kingdoms, for the use of Students, Druggists, Pharmacists, and Physicians. By John M. Maisch, Phar. D., Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. Third edition, 257 illustrations, 12mo, cloth, pp. 532. Philadelphia: Lea Brothers & Co. 1887.

Transactions of the State Medical Society of Arkansas, Little Rock, 1887. This volume of proceedings bears ready evidence that the profession of Arkansas are full of the spirit of progress that characterizes the current history of American medicine. A considerable number of excellent papers were read, and a spirit manifested that bodes good for the future of medical science in that rapidly advancing State.

The Waif. The usual courtesies constrain us to announce a journalistic venture called the Waif, published at Lafayette, Indiana, and devoted to diseases of children, women, rectum, and anus. We have not seen the first number, and do not know exactly where the women and children come in, but judging from the way the cultured editor in this second number goes for the editor of the Independent Practitioner, the contents of whose skull we are informed consist of white matter and offal, we incline to think the Waif has a "dead thing" on two items in his specialty.

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States, for the fiscal year 1887, pages 308. Washington: Government Printing Office. 1887. This well arranged and succinct report of the operations of the Marine Hospital Service is characterized by the usual excellence that attaches to the work of that excellently managed department. It is with some disappointment that we fail to find the report of the committee sent to investigate yellow fever in South America, and must conclude it is not yet completed. The Marine Hospital Service is in many ways doing an excellent work, and as a nucleus of the nature of an interstate sanitary guardian, as promoting a high order of medical education, and as furnishing a mass of statistics of disease and surgical operations, without motive for bias, it is filling a useful mission.

An Interesting Problem.—Can a man cough himself to pieces? At an inquest recently held on an inmate of the Borough Asylum, considerable interest was attached to the finding of a broken rib in the body of a patient. The doctor who gave evidence endeavored to point out that under some abnormal conditions bones may be broken during life by muscular efforts, or even by the act of violent coughing. The coroner, in commenting upon this, appeared to have much difficulty in recognizing the existence of such an unusual occurrence, and naïvely stated to the jury that they would doubtless have equal hesitation in appreciating the learned theory that it was possible for a man to cough himself to pieces! A perusal of the writings of Dr. Weir Mitchell and Prof. Charcot will show that spontaneous fracture of the bones in locomotor ataxy is not uncommon; the importance of this in medico legal inquiries is worth remembering, and throws much light upon questions affecting the treatment of the insane.—*Lancet.*

Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Mr. Lennox Browne, Senior Surgeon of the Central London Throat Hospital, in a lecture before a large audience of the medical profession, the subject of which was Benign and Malignant Growths of the Larynx, prefaced his remarks by stating that he was prompted to speak on this subject because it was largely occupying the public mind at the present moment, and it was therefore one concerning which it was very necessary and desirable to give some accurate information; but at the outset he disclaimed any intention of impertinently interfering with a case he had not seen, far less speaking in a spirit of jealousy or cavilling criticism which might be calculated to harass those charged with a terribly anxious responsibility. Benign growths of the larynx he divided into three classes: (1) Those which, once removed, did not recur; (2) Those which recur, but in which the recurrent element is not strongly manifested; (3) Those in which recurrence is so persistent as to practically constitute a local malignancy, without, however, infecting the system with the elements of a fatal constitutional disorder. He considered benign growths to be rare and to occur in not more than one per cent of chronic laryngeal disease. The commonest primary cause was active congestion of the mucous membrane, and at least half the cures on record occurred to those whose occupation obliged them to exercise their voice professionally. With regard to the treatment Mr. Browne insisted that many small growths might be reduced by astringent applications, and that all should, as far as possible, be removed by instruments so guarded as to be incapable of wounding healthy tissue. Some injury was believed to be a not infrequent cause of malignant degeneration of growths which were primarily benign, and the lecturer had been the first to draw attention to this fact as long ago as 1875. The proposition had met with opposition in one or two quarters, but it had been again brought forward prominently during these last few days as if it were something new. Evidence appeared to accumulate in confirmation of the correctness of the lecturer's conclusions on this subject, and doubtless, he had no doubt, they would soon be generally accepted. The distinction between benign and malignant growths was carefully elaborated, as well as the varieties of malignant formations; such variations denoting varying degrees, both of local malignancy and of constitutional infection. In justification of those who advise delay of radical treatment by excision, statistics were given to show that, while an enormous percentage of such cases have a rapidly fatal issue, in none is there any recovery of voice, or any thing more than prolongation of a few years of life of considerable discomfort. No physician would dream of advising such a hazardous procedure so long as microscopic examination showed the disease to be of an innocent character. The milder operation of tracheotomy, while less immediately fatal, possesses all the advantages as to extension of life, and a minimum of the dangers and miseries of so-called radical extirpation.

The undesirable after-symptoms of the administration of opium, such as the general interference with the digestive functions, are said by Dr. A. G. Auld to be done away with by a very simple plan. The method consists merely in giving along with the tincture of opium (supposing this to be the preparation of the drug prescribed) an equal, or even a rather larger, proportion of spirit of ether. The latter stimulates the action of the alimentary canal and the secretive organs generally, and thus neutralizes the effect produced upon these by the opium alone, while not interfering with its powers in any other respect.

Dr. A. E. Garrod has recently examined, in the light of a large number of cases, some of the arguments put forward in support of the view that rheumatoid arthritis was a disease of nervous origin. The statistics given were based on a series of five hundred cases. Arguments were adduced in support of these propositions: (1) That the causes of rheumatoid arthritis were such as might be expected to act upon the central nervous system. (2) That the distribution of the lesions was such as would be likely to result from nervous lesions. (3) That the distribution of the lesions was similar to that of certain arthropathies of spinal origin. The influence of heredity was first discussed. In 216 cases out of the 500 there was a family history of joint disease, sometimes of more than one variety. There was a history of gout in 86, of probable gout in 10, of rheumatism in 64, and other conditions which might be classed together as probably rheumatoid arthritis in 84. These figures could only approximate to accuracy, as they were based upon information given by patients. Dr. Garrod also considered the influence of uterine causes, and showed that when the female cases were arranged according to age of the patients when the disease commenced, there was a steady increase in numbers up to the period of the menopause and a steady decrease after that period. Among the male cases there was no such regularity. Of the 500 patients, 411 were women and only 89 men. The influence of anxiety, care, mental shock, injuries, damp, cold, and previous rheumatic attacks were discussed, and each of these was shown to have a share in the causation of the disease. Dr. Garrod lays great stress upon the extreme symmetry of the joint lesions of rheumatoid arthritis, and he believes that there is a tendency for the joint lesions to advance up the limbs from the periphery toward the trunk. This order of invasion is, however, by no means constant, but in particular instances it was well marked; in the localized form of the disease it was, of course, absent. The knees ranked only second to the hands in liability to rheumatoid arthritis. In the five hundred cases under consideration it was shown that there was a close resemblance between the distribution of the joint lesions in rheumatoid arthritis and in the recorded cases of arthritis following spinal concussion, whereas in mere local spinal injuries one or mere large joints were usually affected, as in tabes dorsalis. The associated nervous phenomena, such as muscular wasting, increase of tendon reflexes, etc., he regards as secondary to the joint lesions, and as therefore lending no efficient support to the theory of the nervous origin of rheumatoid arthritis.

According to a telegram from Berlin it seems that Dr. Scheuerlen of that city, in the course of some experiments which he was carrying on in the laboratory of the Charité Hospital, has discovered a bacillus to whose presence cancer is due. However, there is no mention of a cancerous growth having been induced by the introduction of the bacillus carefully isolated from all others, therefore the discovery is obviously limited up to the present to finding in cancerous matter a hitherto undescribed species of bacillus.

Sir William Gull has arrived safely in London from Scotland. The long railway journey from the North having apparently caused no interruption to his slow but satisfactory recovery.

LONDON, November, 1887.

PARIS LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Dr. Grancher, Professor of Clinical Medicine at the Hôpital des Enfants, lately delivered a very interesting lecture on Infantile Syphilis, which he founded on several cases which have come under his observation since he has been attached to this hospital. He took occasion to impress on his audience that the distinction that syphilographers have endeavored to establish between hereditary syphilis in its precocious stage and hereditary syphilis which appears tardily is not so clear as that which exists between fetal and infantile acquired syphilis. Hereditary syphilis, the lecturer stated, may be tardy and may remain latent to the age of twelve or fourteen years, when only the first manifestations of the disease may appear. Professor Fournier has cited cases of the appearance of hereditary syphilis at fourteen years, but the subjects had been more or less sickly since their birth, which makes Dr. Grancher observe that it is always the same syphilis, more or less rapid in its evolution. Syphilis, he added, always commences two or three months after birth. It is possible that it may remain latent for a longer time, but the diagnosis then becomes most difficult, and in the greater number of cases it is impossible to say whether one has to do with hereditary or with acquired syphilis.

Professor Grancher then related the following case in illustration of the difficulty that sometimes attends diagnosis. A young girl was brought to the hospital by her mother with the statement that the child had been in perfect health until six months previously, when she had been vaccinated. The doctor had some difficulty in believing the mother's history, as the child appeared to have a natiform skull; but there was another reason that militated in favor of acquired syphilis, and that was the existence of an enlarged axillary gland, which was observed only on one side and which evidently resulted from the chancre that the child had on her arm, but there was no trace of chancre, or even a cicatrix, in any other part of the body. There were three vaccinal pustules on each arm, all having the same character. Dr. Grancher was much perplexed, when the child died in the hospital from an attack of measles, complicated with broncho-pneumonia. The necropsy showed that the child's skull was not natiform, which confirmed the correctness of the story related by the mother. It must therefore be admitted that the child was affected with "acquired syphilis." This case would seem to justify the outcries of the anti-vaccinationists, but such an accident as that related above may be prevented by resorting to animal vaccination.

At a recent meeting of the Academy of Medicine, Dr. Herard read a long report on two memoirs, addressed to the Academy by Dr. Seiler in 1885 and by Dr. Garcin in 1887, relative to the treatment of pulmonary phthisis by hydrofluoric acid. This acid is so caustic that no attempt was made to employ it as a therapeutic agent. In 1862, however, the fact was noticed that the condition of glass-workers who were tuberculous was very much improved when they were exposed to the emanations of this acid. Dr. Bastien was the first who endeavored to determine the action of the vapors of hydrofluoric acid in patients affected with divers affections of the respiratory passages. Others followed in the same field, but it is said that, owing to the imperfect manner in which the acid was employed, the results were not satisfactory. Later on the subject was taken up by Drs. Dujardin-Beaumetz, Seiler, and Garcin, and now the two latter physicians, after some experience with the acid, assert that it should head the list of medicaments which are employed for the cure of pulmonary phthisis. It has, however, been proved as a certainty that hydrofluoric acid is an antiseptic as powerful as the biniodide of mercury, and it has, at the same time, remarkable anti-bacillary properties. In the treatment of tuberculosis the best procedure consists in introducing into a cabin, disposed *ad hoc*, air which had sojourned in a solution composed of hydrofluoric acid, 150 grams; water, 300 grams. The patients remain an hour in the cabin, the air of which is renewed every quarter of an hour. The number of inhalations should vary from twenty to seventy. Under the influence of this treatment, and sometimes after the second or third sitting, a marked improvement takes place in all the symptoms, while at the same time the number of bacilli in the sputa are diminished, and they sometimes disappear altogether. In concluding his report, Dr. Herard made the following statement: "The inhalations of hydrofluoric acid possess a therapeutic action which is incontestable when the phthisis had not reached a too advanced stage. They are devoid of inconveniences, of an easy application, and may, moreover, be combined with internal or external medications, and particularly with hygienic treatment, which is the essential basis of all sound therapeutics."

At the Société Médicale des Hôpitaux Dr. Petit recently brought to notice the case of a woman, aged forty-eight years, who was affected with an epithelioma of an ulcerated uterine neck, and in whom he discovered the existence of a cancerous gland above the left clavicle. A similar observation was made a short time ago by Drs. Troisier and Raymond, who are inclined to look upon this sign as characteristic of cancer of the womb.

In his thesis for the doctorate Dr. Leroud made some observations on the treatment of hydrocele by injections of the chloride of zinc of a ten per cent solution, with or without previous evacuation of the liquid. The author recommends this procedure on the following grounds: simplicity of execution, innocuousness of intervention, absolute security against operative sequelæ, relatively rare relapses, use of a liquid which is at the same time caustic and antiseptic; absence of all acute diffuse inflammation, cure relatively prompt, prolonged rest in bed unnecessary, and the speedy return of the patient to his occupation. The only objection possible is relapse, but, citing two eminent surgeons, one of whom states that "hydrocele is always symptomatic of a lesion of the epididymus" (Panas); "In the two thirds of cases hydrocele is connected with a persistent induration of the epididymus" (Polaillon); the author concludes that the relapses are not imputable to the mode of treatment, but are immediately and intimately connected with a pathogenic lesion which is persistent, durable, and latent, and in this latter condition is able to repercuss on the tunica vaginalis. Moreover, Dr. Leroud adds that this method exposes the patient to no danger whatever. Hydrocele being a benign affection, the surgeon, unless there be any special indications, should proscribe all procedures capable of giving rise to any grave complications.

Dr. Liger, according to the *Lyon Medical*, recommends the following formula for disguising the taste of castor oil, any thing in that way being welcome: Saccharide of casenm, sufficient quantity to emulsify castor oil, 15 grams; to which is gradually added cherry laurel water (French codex), 5 grams; distilled water, 100 grams. This preparation completely destroys the unpleasant taste of the oil without in any way affecting its action. To increase the emulsifying property of the mixture, the author recommends the addition of a small quantity of the bicarbonate of soda and of sugar.

PARIS, December 2, 1887.

Translations.

LONG LIFE IN ITS RELATION TO HISTORY. (By Prof. Corradi, of Pavia.) To live as happily and as long as possible is the wish of the entire world, the aim of hygiene, and one can also say of all knowledge that commends itself to men. Men desire eternal youth. By every means men have sought to determine the normal duration of human life and have brought it in relation with the periodic revolution of the earth.

Aristotle reckoned the life of man by the duration of pregnancy and growth, the first physiological method. But how long does growth continue? According to Flourens up to the uniting of the bones and the epiphyses, which, with men, takes place at twenty years, with horses at five, with dogs at two, etc.

These figures multiplied by five should give the proper duration of life with men as 100 years. It is a question, however, whether the physiological indications agree with the facts. Haller has taken great pains to ascertain the customary and the longest duration of life resting on fact. The oldest man whose age is trustworthily ascertained was Henry Jenkins, who was one hundred and fifty seven years old. This agrees with the rule that Haller has laid down that the period of growth multiplied by eight gives the extreme duration of life.

Prof. Cexis sought the normal age by excluding in his calculations death in consequence of unusual causes, and especially premature deaths, not taking into the calculation such as died before the tenth year.

On this basis it results that, of 1,000 persons of both sexes, 39.6 per cent should pass the seventieth year, a number which agrees well enough with the result that other investigators in England, Switzerland, and Sweden, have reached. For the one hundredth year there is no type, that is to say, we can not tell how those who should reach this advanced age should behave. This is a deduction from the fifty-two answers which the British Medical Association received from the centenarians of England, and from which no man can picture to himself the figure of the centenarian, man or woman, even for England; whether a man is thick or thin, strong or weak, has teeth or not, smokes or not, whether he has much blood or little blood, whether he is small or large, he can equally reach a hundred years and more.

But more than two thirds of these centenarians were women, and it also appears from other statistics that the sex which men are in the habit of calling the weaker is in fact the longer lived. The inward cause of this difference we can not find, but it is certain that the quieter conditions of female life have their share in it. We must believe that outside of condition and mode of life, there is something in our organism that gives the power of long living. What praise has a vegetable *regime* not been accorded! Heathen philosophers, church fathers, physicians of all ages, have exalted it to heaven and promised therefrom the wonders of the patriarchal age. And yet nearly all centenarians indulge in flesh food. It can be said that one comes into the world with the endowment of long living as with the endowment of growing tall. But certainly in this instance the privileges of the parents fail with the children, for many circumstances can withhold the inheritance.

Hereditary influence is a fact to which, however, many peculiarities and modes of treatment of the organism and its environments contribute.

The attainment of a hundred years in age remains a privilege of the individual and not of the race, whatever may be its color.

Even if for securing advanced age to the individual the care of hygiene be taken away, public hygiene still can not be shut out. There are many things which prepare in advance for long life. It is the part of hygiene to remove the causes of accidental and premature death, and to produce strong generations out of whom centenarians may proceed. It must supply the information by which every man can better guard against the diseases that are at times unavoidable.

The sanitation of a city, the prophylaxis of infectious diseases, the wise bringing up of children, these circumstances increase the prospect of long life. Macrobiosis has at all events made great advances, inasmuch as men have learned that it is not attained by pills and salves and other like expedients. But that is not enough. Hygiene must establish rules that fit every case, it must know the circumstances as they exist. In a word, it must be less abstract and objective. Simplicity is its strength.

Taking the history of the past thousand years, we are carried back to the date of the reconstruction of Europe. The crusades exerted a significant influence in the population. It has been calculated that ten thousand Europeans a year on an average, or two millions in all, perished in the crusades. It is obvious that the extent of depopulation by the crusades can not be ascertained; at the most a slight falling off in the attainment of old age, and a derangement of the relations of the sexes, must have occurred, since the recruits consisted mainly of men between thirty and fifty. This might result in diminished frequency of births. At different times and different places this derangement of population must have made itself felt, for sometimes one and sometimes another country furnished the larger contingent of crusaders. The distribution of the population of Europe at the middle of the fourteenth century was already quite different from what it was eight hundred years earlier. We have to seek the thickest settled territories in Italy, France, and Spain, which, as well on account of thrifty industries as of devotion to agriculture on the part of the people, could most rapidly gain in population. But Eastern Europe, that had just begun to revive in population, suffered a new and long-continued back set through the domination of the Moors. This was a slow period; but the development of the population, on the whole a steady one, experienced a terrible check about the middle of the fourteenth century. Death swept the earth. Twenty five millions of men, estimated at one fourth of the population of Europe, were carried off inside of three years, and the rage of the pestilence with slight interruptions extended for thirty-five years. Altogether the idea of increase of the population was thereby rendered exceedingly small.

According to Adam Smith, the population of Great Britain and most other European States required not less than five hundred years to double in number, while later official statistics show that since 1700 the population of England and Wales doubles in one hundred and nine years.

But scarcely had the new generations, brought up in dread and misery, begun to have a breathing spell, when events not less significant of evil broke forth on the population of Europe, the religious wars of the sixteenth and seventeenth centuries and the Turkish domination from the fifteenth to the seventeenth century. On the contrary, the rest of the seventeenth and eighteenth centuries brought with it an opportunity for recuperation. The cities especially increased rapidly in population, while the country lagged behind.

There began, however, about the turn of our century, a revolution in the phenomena of the movement of population, though at first, it is true, under the influences of disturbances continued from the previous century, but after the close of the Napoleonic wars in uninterrupted activity.

It is in the fullest sense of the word a new era that breaks on the vision. On the apparently senescent Europe a youth-giving power seems to have become efficiently active. The population increases in nearly all countries in hitherto unknown, and indeed an undreamed of progression. In the eighty-seven years of our century the population of Europe has nearly doubled; from one hundred and seventy five millions in 1800 it has grown to three hundred and fifty millions in 1887. And this, in spite of the loss in war to be counted by millions, the emigration to the New World, and severe epidemics from which this century has not remained entirely exempt. Indeed, this increase is still more striking when we direct attention to the individual divisions of Europe. The whole of German Europe has nearly doubled in the last sixty years, while France has required nearly two hundred years. Italy has doubled since 1770, a period of one hundred and seventy-seven years. Not without reason have the changed methods of production as well as the development of commerce been pointed out as the cause of a far-reaching emancipation from the soil and from old social restraints, and as an explanation of the powerful development of propagating forces. The actual increase of population in Europe progresses multifariously under very variously operating conditions. The populations of Saxony and Servia have doubled in fifty years; England, Norway, Greece, and Roumania in from fifty-five to sixty years; Prussia, Scotland, Denmark, Sweden, and Finnland in seventy years.

To our time alone belongs that noble moral government which above all else understands the rights of man as the right to live, and treasures human life and human happiness as the greatest good. And herein is it promotive of population, for it works through the might of moral conviction, through the interests of a true civilization.

We must needs therefore reckon on the part of a further high rate of increase of population. Even if the birth-rate should rise no higher; yes, even if neo-malthusianism should tarry longer in its destructive round, the progress of hygiene, the public care, the social morality would guarantee this result. Truly, in the historical contemplation of the march of population there exists a fact full of fearful significance. Grand events, overpowering in their influences, have ever overtaken a multiplying and vigorous humanity, so that it would appear as if mankind were destined never by steady progressive development to fill up the circle of the earth, as if these destructive catastrophies were an essential feature of the plan of the Creator. We bow in humility before His unsearchable counsels, but we have no right, because former ages could not solve the problem, to regard it as fatalistic and for all time unchangeable.

We descry, in these fearful facts of the periodic back-sets to the increase of population which history records, rather a warning for the the world to guard against such calamities; and we find the power for this in the completion of knowledge, of social order, and putting in force the precepts of love, the refined humanity of our epoch.—*Internationale Klinische Rundschau.*

Retro-sternal Pulse.—In the French Association for the Advancement of Science, at Toulouse, M. Maurel read an interesting communication on the *retro-sternal pulse.* His researches have led him to the following conclusions: (1) In a certain number of cases one may, by depressing the walls just below the sternal fourchette, and following the posterior plane of the sternum for about a centimeter, feel actual pulsations, to which M. Maurel has given the name of retro-sternal. (2) These pulsations are sometimes found in the case of healthy men, but they are much more frequently found in the course of diseases. (3) They appear to be the pulsations of the arteries which arise from the aorta transmitted to the left bronchio cephalic venous trunk. (4) There are some diseases in which the frequency of the retro-sternal pulse is such that it may be considered as one of their symptoms. (5) It is found with especial frequency in affections of the heart and in typhoid fever. (6) Its cause varies; in the healthy state it must be explained by a special anatomical disposition. In the pathological state one may invoke (*a*) an unusual and mechanical approximation of the left broncho-cephalic venous trunk; (*b*) a dilatation due to a sort of return circulation; (*c*) a passive dilatation under the influence of a diminution of the venous tension; (*d*) an insufficience of the tricuspid valve. (7) This symptom may render some service in diagnosis, and especially in the prognosis of certain affections. (8) It constitutes a practical means useful in following the state of venous tension. *Le Progrès Medical.*

TREATMENT OF HEMORRHAGE BY REVULSION OVER THE LIVER.—M. Pètit, on the same occasion, read an essay on the treatment of certain hemorrhages by revulsion over the liver; the author affirmed that the fact of hemostasis by revulsion over the liver, which M. Bernard had pointed out to the Academy of Medicine had since been confirmed by a number of observers. It appears to be necessary to seek the explanation of these facts in the reflexes among the different parts of the organism.—*Ibid.*

MEASURES AGAINST SECRET REMEDIES.—Professor Florian Kratschmer, of Vienna, committee on measures against secret remedies at the recent International Congress of Hygiene and Demography at Vienna, made the following report: (1) Since, in spite of legislative enactments directed against them, secret remedies which rest on no scientific basis, and have no other object than to dupe and deceive the public, and are injurious to the public health, continue to be extensively sold, it is necessary to consider them from a moral point of view as a grave evil from which humanity suffers. (2) The suppression or restriction of secret remedies to any large extent is to be obtained only by individual action in certain orders of society, and under the intervention of the State. (3) Governments must deprive secret remedies of the conditions of their existence: (*a*) by seeking to elevate the level of hygiene, teaching it in all grades of society, and also by fostering it and rendering it general; (*b*) by enforcing a suitable reform and regulation of pharmacies; (*c*) by establishing stations for scientific inquiry, which shall aid in purging the State of all secret preparations of food luxury and medicines; (*d*) by proclaiming laws absolutely prohibiting the advertisement, sale, or giving away of secret remedies. After a short discussion the Congress adopted the report —*Ibid.*

NAPHTHOL AS AN ANTISEPTIC MEDICAMENT. At the Academy of Sciences, in October, Dr. Bouchard reported on the employment of naphthol as an antiseptic medicament.

For certain purposes he thinks this agent should be preferred to all other known antiseptics. It is its small solubility that gains for it this superiority.

It ought to have the preference in certain diseases of the tissues, for the antisepsis of the serous cavities, and above all for the antisepsis of the digestive canal. By itself, practically an insoluble antiseptic restrained from absorption by its insolubility, it will remain every where present throughout the length of the digestive canal, and may be administered in doses sufficient to render all fermentation impossible without the administrator having need of apprehension of its action on the general economy which it is not able to enter.

That which poisons is not what is injected but what is absorbed and enters the blood. But naphthol is one of the most insoluble of medicinal substances. In doses of five grains per one thousand of nutritive material, it completely hinders the development of microbes of the bacillus of glanders, of the mammary inflammation of sheep, of chicken cholera, of bacterian charbon, of the micrococcus of pneumonia, and of two of the organisms of suppuration, it retards the development of the bacillus of typhoid fever, and hinders somewhat that of typhoid fever.

Urine agitated with naphthol, then filtered and exposed to the air, will not ferment.

In the strength of six grains to the thousand, it hinders the secretion of the coloring matter of pyocyanine, and of the strength of nine grains per thousand it suppresses absolutely the vegetation of that microbe.

It acts in the same way with a microbe discovered by Charvin and Roger in the intestine of a rabbit, and which normally secretes a green matter. It requires $\frac{30}{100}$ of a grain of the biniodine of mercury to obtain with respect to the microbe of pyocyanine the same antiseptic action as six grains of naphthol but in compelling a rabbit to ingest $\frac{15}{100}$ of a grain of biniodine of mercury sometimes death may result, while fifty-two grains will be required to produce the same effect. By the way of the stomach then, naphthol is twenty-three times less poisonous than the biniodine.

For a man of one hundred and sixty pounds' weight, the poisonous dose of naphthol would be nearly six ounces, but thirty-seven grains of this substance per day is sufficient to assure intestinal antisepsis. Introduced into the blood in a state of solution, naphthol is poisonous almost in the same degree as quinine and carbolic acid. The liver, however, diminishes the toxicity of this agent, as Roger has shown to be the case with a large number of poisonous substances. To obtain the same physiological effects it is necessary to inject into the vena porta one and a half times more than is injected into the peripheral veins.

Compared to the other insoluble antiseptics (iodoform, iodal, and naphtholine), naphthol deserves the preference, at least for intestinal antisepsis, for the reason that it presents the greatest step between the antiseptic and the toxic dose.—*Ibid.*

SUDDEN DEATH IN PLEURISY.—Dr. Weill reaches the following conclusions in regard to sudden death in pleurisy:

1. Sudden death in pleurisy appears to be connected with certain lesions, the principal of which are, thromboses, or embolisms of the heart or pulmonary artery, edema of the lung on the side opposite to the pleurisy, and alterations of the cardiac muscle; the last often elude investigation, as they demand the employment of the microscope.

2. Cases of sudden death attributable to functional troubles, as severe syncope; to mechanical troubles, such as displacement of the heart, twisting of vessels, or the bending at right angles of the inferior vena cava. Hypothetical lesions, such as capillary embolisms, ought to be provisionally reserved.

3. Sudden death occurs in pleurisies of the most diverse character, in right pleurisies as much or more than in left, in acute or chronic with progressive engorgement, stationary or diminishing. The liquid is generally serous.

4. Pleurisies which terminate by sudden death may, or may not terminate with particular symptoms, such as paroxysms of dyspnea, premonitory syncope. Often, death comes on in the midst of appearances the most satisfactory. This generally happens on the occasion of a movement or an effort.

5. *The Treatment.* This is hopeless when lesions of the cardiac muscle are present, or thromboses of peripheral veins; under other circumstances prophylactic treatment by thoracentesis is often efficacious.

This is indicated in certain cases by the threatening symptoms indicated above, in others by the height of intrapleural pressure. It is applicable to both chronic and acute cases. *Journal de Med. de Paris.*

THE FAUNA OF THE GRAVEYARD.—M. P. Megnin, in the Academy of Sciences, November 14th, as a result of a study of the fauna of cemeteries, reported that he had observed, while making exhumations as directed by M. Brouardel, that bodies are devoured in the graves by worms in the same way as when they are left exposed to the air. These worms are the larvæ of insects belonging to different groups (four diptera, one coleoptera, and two thysanoures). It is interesting to know how these insects reach the inhumed bodies at a depth sometimes of six feet in the earth. The larvæ of the diptera are found only in bodies interred during the summer, their eggs have been deposited in the natural openings of the corpses (mouth or nose). As to the other larvæ, laid on the surface of the soil, they have been attracted by the emanations of the cadaver, and have traversed the bed of earth. Particular forms of these larvæ are found only in fat bodies. These facts are regarded as of great importance in legal medicine. — *Le Progrès Medical.*

AURAL EPILEPSY.—M. Boucheron has shown in a communication to the Academy of Sciences, that there exists an epilepsy of auricular origin, presenting all the clinical varieties of true epilepsy, the grand mal, the petit mal, and even the hystero-epileptic form. The exciting cause is exudation on the acoustic nerve, producing by reflex a perturbing influence on the medulla and the encephalon, in the same way as in the epilepsy described by Brown-Sequard; excitation of the trigeminus produced epileptic syndromes.

One of the most interesting epileptogenetic affections is the ear tension produced by obstruction of the eustachian tube. The examination and treatment of the ear are therefore to be conducted with regard to symptomatic ear affections.—*Ibid.*

A NEW ARTIFICIAL SERUM.—M. Mayet has reported to the Academy of Sciences a new artificial serum, designed for the dilution of the blood for the purpose of aiding in the enumeration of the corpuscles. The liquid has the following formula:

Distilled water, 100 grams; anhydrated neutral phosphate of soda, 2 grams; cane sugar, q. s. to raise the density of the liquid to 1.085. This serum preserves excellently the form of the elements, and does not present the inconveniences of other liquids hitherto employed.—*Ibid.*

AN army surgeon of France is said to have proposed in the Academy of Medicine that the course of the arteries should be tattooed on each soldier's body, so that in case of his receiving wounds in war he would, when surgical aid was not at once available, know where to apply the needed pressure for preventing loss of blood and probably consequent death. "First aid" classes would supersede the necessity for so painful a proceeding.

Abstracts and Selections.

AN INQUIRY INTO THE DISTRIBUTION AND ETIOLOGY OF HEPATIC ABSCESS. — (D. H. Cullimore, M. D., M. R. C. P., London, F. R. C. S. I: Indian Army, retired.) The importance of the disease I am about to consider will be best understood by a reference to its prevalence among the soldiers of our European army in India. During the decade ending 1879, with the exception of cholera, hepatitis was the principal cause of death, 13.5 per cent of deaths being due to this cause. The total number of deaths was 1,267; number invalided, 3,351; the rate of invaliding being 7.11 per 1,000 of strength. During the same period there were 28,780 admissions from hepatitis out of an average strength of 57,742. As regards the causation of hepatic abscess, which is almost the only fatal termination of hepatitis in hot countries, authors, following each other, are in a loose and general way agreed. Heat, dysentery, malaria, excessive eating and drinking, sedentary habits, gall stones, and other centric and eccentric excitations and ulcerations that predispose to congestion of the liver, together with the effect of chill, are generally looked upon as the cause of this disease.

While admitting this, it is necessary to remember that of late much discussion and even heated argument have arisen among men distinguished by their special knowledge, with reference not only to the relative effect of one factor or another in producing hepatic abscess, but also as regards the geographical, or, to speak more correctly, the latitudinal distribution of this disease.

Brigade Surgeon Curran, in the Indian Medical Gazette, 1880–81, gives it as his opinion that the liver disorders soldiers and others suffer from in India are largely due to overindulgence in animal food, rum, and malt liquor. Dr. George Harley expresses himself as follows:

"That these factors (viz., gluttony and intemperance) are not only the most common predisposing cause of idiopathic suppuration of the liver in India but elsewhere." And again, page 809 of his book, he continues: "The chief exciting cause of hepatic abscesses are gluttony and intemperance, which in proportion to the habits of life are far more common among Europeans in the tropics than the same class of persons in temperate regions."

As regards its distribution, the same author brings forward statistics which would tend to show that in spite of the bad habits of Europeans abroad, hepatic abscess is more common in London than in India. Dr. Mouat speaks in substance as follows: Most Europeans consume more animal food and spirits than are good for them. The soldier, unless on the march, consumes more meat and strong liquor than he can safely dispose of, frequently attaining as a result the condition of the Strasburg goose, the harbinger of disease and death. Others consider that the quality and quantity of the food and drink, particularly the former, play but a subordinate part in the production of the disease. Surgeons-General Gordon, Balfour, and Moore, and Sir Joseph Fayrer are of this opinion. Again, many, among whom I may mention Dr. Ewart, look upon malaria as a fruitful source of hepatic abscess.

Even the effect of the great factor, heat, has been disputed by no less an authority than the late Dr. Parkes, who says: The greater prevalence of the disease in the East than the West Indies has never been satisfactorily explained, hence, says Dr. Parkes, there is perhaps lent but little connection between heat and liver disease. Some, as Dr. Moore, consider chill the most powerful of all exciting causes. Others are unable to see why chill should be more injurious in the tropics than elsewhere, or why chill should operate more powerfully on the liver in hot climates than on the lungs or other internal organs.

Such are some of the points that require elucidation, and it is as an effort to apportion to each factor its proper influence in the causation of hepatic abscess that this paper is mainly but not entirely directed. To simplify the subject, it is well to divide the causes of the disease into predisposing and exciting as far as it is possible to do so, bearing in mind that predisposing causes may sometimes become the exciting ones, and the reverse.

Among the predisposing causes, then, in order of frequency, I would place heat, intemperance, dysentery, excessive eating and drinking, with sedentary habits, hereditary predisposition from hepatic disease, excessive use of bad and fresh tobacco, nervous depression, or whatever else, either centric or eccentric ulcerations, or irritations, traumatic or venous, that may predispose to congestion of the liver. Guinea worms appeared to be exciting factors, and inflammation, not only of abdominal veins, but in one case of mine those of the legs, have set up this disease.

Malaria has also been considered a predisposing cause. I do not think it is so.

Exciting Cause. The main exciting cause is the influence of chill, produced either by wetting, or by cold air or water while the body is heated or sweating. In addition there is one other exciting cause which I have not seen mentioned, and which, nevertheless, I hope to be able to show is a determining factor of no mean importance, I allude to unreasonable horse exercise, or jolting on a gun carriage—forms of violent injury in those hepatic inflammatory conditions where rest is above all things necessary to resolution. This is, distinct from direct local injury, the cause of traumatic abscess.

Distribution. With the view of endeavoring to arrive at a decision on these points, I shall first review the distribution of hepatic abscess in its widest geographical and latitudinal sense, and, second, its distribution with reference to local conditions appertaining to the environment of the individual within more limited areas.

Latitudinal Distribution. A careful examination of the distribution of this disease shows very clearly that it is far less frequent in equatorial than in tropical zones, and that it attains a maximum in low tropical regions.

By equatorial regions I mean that belt extending on either side of the equator to about 68° or 78°, and characterized by two rainy and and two dryish seasons, when the almost constant rains not only counteract the great heat of the sun, but render the climate remarkably equable as compared with low tropical regions characterized by a well-marked wet and dry season, by periodical rains, and great and continuous heat. This region (the low tropical) extends from about the 7th degree to the 18th, and presents in their greatest intensity the conditions most favorable to the predisposing factor of heat combined in a high degree with the exciting factors of considerable variations of temperature, associated with torrential periodic rains, factors most favorable to chill, and particularly so when, taken in connection with the great preceding heat. This region is well exemplified in the Madras Presidency, the seat of the greatest prevalency of hepatic disease. If, therefore, we except the smaller tropical islands, as the Andamans in the East and the Antilles in the West, whose climate approaches near to that of the high seas, it will be found that the equatorial belt, remarkable by its equability, by the absence of well-marked seasons, by constant as opposed to periodic rains, by a lower temperature than the low tropics, is less subject to hepatitis and its generally constant attendant, dysentery, than the tropical regions before referred to.

The smaller equatorial islands of the Dutch archipelago, the Mollucca, Banka, Celebes, and the Linggas, enjoy immunity, while in the larger, as Java, Borneo, Sumatra, and New Guinea, it is comparatively rare, and generally confined to the slopes of the hills. It becomes more common in the Philippine Islands, and particularly in the northern and large island of Luzon, bordering on Cancer. Southern French Cochin China, peninsular in form, though subject to fever so virulent that European children born in the country never survive, suffers little from hepatitis and dysentery, while Tonquin, bordering on China, and exposed to periodic cold winds from the northern hills, these scourges are remarkably prevalent. In Singapore, Penang, and the Andamans hepatitis is rare. In Southern China it is not uncommon, while in Burmah and Lower Bengal, particularly along the river valleys subject to inundation, it attains its maximum. In these regions it is not associated with malarial fevers, at least in Burmah, a country with which I am well acquainted, and where fevers are not prominently prevalent. The portions of India which enjoy the greatest freedom are Scinde and the Punjaub, sub-tropical regions characterized by a very dry climate, a long and bracing cold season, and, as regards the latter, subjected far beyond all other parts of India to endemic febrile disease. In Ceylon, Persia, and Arabia it is a rather common disease, while in Bombay its greatest prevalence would appear to be on the slopes of the lower hills. In Africa and America the same distribution holds good. Thus it prevails in Egypt and Sennaar, while it is almost unknown in Zanzibar, latitude about 6° S. Here fevers are virulent.

The celebrated explorer, Stanley, draws attention to the greater salubrity of the equatorial stations of the Upper Congo, raised but a few feet above the level of the river, as compared with those situated nearer its mouth but further removed from the equator, the sites being at this junction of the river with the windy gorges, but far removed from excessive vegetation.

In those latter stations specially selected Europeans sickened and died, while those who survived almost invariably recovered on being sent further inland to the wooded country bordering on the line of the equator. Stanley here refers more especially to fevers which he believes are not the result of malaria but chill.

Sub tropical Algiers, a country of terraced hill slopes, suffers considerably from hepatitis; and in the province of Oran, where intermittent fevers are rare, these diseases are far more common than in the Eastern and more feverish provinces of Algiers and Constantine (Haspel), showing here as elsewhere a certain antagonism between malarial fever and hepatic disease. The distribution also of hepatic abscess in Algiers also illustrates the fact as regards the original *habitat* of the emigrant. The Southern Frenchmen, Spaniards, and Maltese enjoy immunity which is denied to the German, the Norman, or the Briton

On the west coast of Africa hepatitis prevails in its greatest intensity in Senegambia, latitude from about 8° to 16° N., causing thirty-three per cent of deaths from all causes, and including cases following dysentery fifty per cent.

Proceeding southward along the feverish Liberian, Ivory, Gold, and Slave coasts, hepatitis is met with, but it becomes much less common. Dr. Gordon, who served at Cape Coast Castle, informs me it is a rare disease at that station. Nearer the equator, and about the mouths of the Gaboon and the Congo, it is a rare disease. It is very rare also in Nubia, a dry region, not unlike the Punjaub. It is said to be common in Maur, Rouman, and Madagascar. I should myself be inclined to receive with caution unauthenticated reports of its prevalence in the two former islands. At the same time their configuration with hills rising to a high central plateau in the center is more calculated to set up chills than if the surface were flat. It is not common in South Africa.

In America hepatic abscess is especially common in Chili, which is generally and justly considered a temperate region. It is as well to say, however, that it is a narrow strip of territory, formed on the Andean slopes, extending from the 20th to beyond the 50th degree of south latitude, and that the disease prevails mainly in the northern tropical and sub tropical parts. and that it is exceedingly rare at Valdena, latitude 40°, but common enough at Valparaiso, Coquimbo, latitude 33° and 30° respectively. Among forty subjects in dissection room eight had hepatic abscesses (Hirsh). That the frequency is due in a great measure to the ease with which access can be had to the mountain from the narrow coast line fringe there can, I think, be no doubt. Abscess is also common along the coast and forests of Peru, as at Callao, Vangala, and other towns, fully one third of the deaths being caused by indurations and abscesses of the liver.

In equatorial Brazil it is a rare disease, especially at Pernambuco and Bahia; severe dysentery is also an exceedingly rare disease, the climate being exceedingly equable, and the situation being level and fully exposed to the equable influence of the sea At Rio, just within the southern tropic, it is more common, one death occuring among two hundred French in three years, rare also in the fever dens of Guiana, English, French, and Dutch. In Central America it again becomes a common disease, especially at Panama, Costa Rica, and

San Miguel. It is not uncommon in Mexico, especially on the west coasts. It is very rare in the Southern States, as at New Orleans, and is almost unknown in Florida.

Among the flesh-eating Australians, unless in connection with hydatids, it is very uncommon, and is almost unknown among the Pacific Islands with the exception of comparatively extensive New Caledonia, where it appears to have made its appearance of late. While not uncommon in Cuba and San Domingo, it is very rare in the smaller West Indian islands, and especially so in the Bahamas.

Coming to strictly tropical regions, we find that small islands, owing to the equability of the climate approaching that of the high seas, enjoy an immunity only second to that of the itself from severe hepatitis, and in particular from its most fatal termination, abscess of the liver.

That mild hepatitis is by no means uncommon in equatorial regions and in smaller tropical islands, while abscess is rare, must be taken to show that though the predisposing causes, heat, intemperance, etc., may induce hepatic congestion, the exciting factor of chill is the main cause of suppuration. In Port Blair, Andaman Islands, latitude 12° N., the admission rate is 65.1 from hepatitis, the death-rate is only 0.83 per 1,000—one of the lowest in India.

The considerable admission and low death-rate in Madras town is due to the dryness, the sandy soil, and the favorable situation of the troops, protected from land winds by a walled fort, open to and on the edge of the sea; while the low admission rate and high death-rate at St. Thomas Mount, is due mainly to the exciting influence of horse exercise, this being an artillery station. The chilling effect of ascending the many low hills in this neighborhood should not be forgotten. The freedom from hepatic abscess enjoyed in the smaller West Indian Islands, when contrasted with the neighboring continent and with the larger islands of Cuba and St. Domingo, and particularly when compared with the incidence of the disease among the British troops serving in those islands and in Hindustan, so long a puzzle to epidemologists, is, in my opinion clearly due to their insular climate. The climate of small tropical islands differs immensely from even the coast districts of continents or larger divisions of land. On these islands no cold, dusty, hot, or pestiferous winds blow for a considerable portion of the year, the chilling influence of which I have had personal experience on approaching Suez, when returning convalescent from hepatic abscess in December to England, and such was the result that pneumonia and hepatitis was set up, undoing in a moment the good effect of the voyage, and placing me *hors de combat* in a dangerous state for six months, and serving as a warning to medical men in the tropics against sending invalids to Europe in November.

On this account then, and owing to the cooling influences of the land and sea breezes, the West Indies are infinitely more salubrious than the shores of the neighboring continent, not only as regards hepatitis and dysentery, but to some extent as regards fever also. Indeed, were we to exclude the death-rate from periodic visitations (once in about seven years) of yellow fever, the mortality of Europeans, at least for many years residence, would scarcely exceed that of England. And, what is also important, according to a recent army return, this salubrity is not confined to adults, but extends to children born on the island as well.

To the equable climate then, and not to teetotalism, is due this freedom from hepatitis, for physicians in these islands, previous to the writings of Dr. James Johnstone, considered stimulants necessary to support the drooping exotic under the enervating influence of heat. Animal food, it is true, is not so plentiful in the West and East Indies, but as regards the soldier the one pound ration is, I believe, the same in both.

The deduction then as regards the broad geographical distribution of abscess of the liver in hot climates, is that, while great and continuous heat is the most powerful predisposing cause, that of chill, the result of seasonal and accidental variations of temperature, of heavy rains following dry, hot seasons, of fluvial inundations, so favorable to wettings, is the main exciting one. In all these countries the dietary and habits of soldiers are similar or identical, and yet the mortality from hepatitis varies from 4.48 at Trichinopoly per 1,000 per annum to 0.27 at Hyderabad, showing that the observation of Dr. George Harley "that climatic conditions *per se*, independent of over-eating and drinking, have little to do with the cause of the disease deserves reconsideration."

The Relative Prevalence of Hepatitis in Temperate and Tropical Regions. According to Dr. Hugh McPherson's figures, hepatitis causes .25 per cent of deaths to strength in Bengal against $\frac{1}{333}$ at home, while the admissions were 3.75 per cent of strength, against $\frac{1}{5}$ per annum in England, showing that it was eighteen times more common, and killed twenty-seven times more soldiers, and was four times more fatal to those attacked in Bengal than in England.

As regards chronic hepatitis, to which, and not abscess, much of the mortality of old soldiers is due, the admissions were 7.66 per cent of strength against $\frac{3}{11}$ at home, the deaths being to strength in Bengal $\frac{1}{10}$, against $\frac{1}{50}$ at home, and the deaths 7.75 to 8.25 per cent at home. I have notes of twenty-five cases of abscess before me as I write, which occurred in my own experience, or were taken from medical journals published in London. Of these five originated in London, all of pyemic origin, one so called tropical abscess originated in Scotland, the subject having never been abroad and temperate, and the rest, sixteen in number, origuated in Burmah, India, and South America. Dr. Danford Thomas informs me he never saw a case of *post-mortem* during his career as coroner in London.

The military mortality in Bombay is 3.77 per 1,000 per annum, while the mortality among the Guards in London is *nil.* Surgeon-Major Hume Spry tells me there has not been a case among the Brigade of Guards for many years. In my own experience I never saw a case till I went to India, and the late Dr. Chevers states that during five years' experience in the *post-mortem* room at Guy's he saw no hepatic abscess. Finally, Hirsh, in his work on the geographical medicine, says it has decidedly the character of a tropical disease. This, however, is only one side of the shield. Dr. George Harley, in his interesting essays, published last year in the Medical Press and Circular, gives statistics taken respectively from St. Bartholomew's Hospital in London and the European Hospital in Bombay, which show that abscess is more common at home, the proportion being 0.81 per cent, against 0.66 per cent in Bombay. The London statistics are the result of 2,464 *post-mortems* by Dr. Norman Moore, in whom twenty liver abscesses were found.

The statistics are remarkable, for, if confirmed, they are calculated to revolutionize our climatic treatment of this disease. I can not, however, in the light of my own experience, and remembering the opposing evidence I have just brought forward, but think that either some error has crept in, or what is more likely, a comparison has been made between things which do not admit of it. It is not stated that the Bombay statistics are the result of *post-mortem*, and as many abscesses are latents and *post-mortem*, in India are, owing to the heat, not likely to be directed to organs that show no signs of disease, this is a point of some moment.

Again, as many abscesses found at St. Bartholomew's may have had their foundation laid in the tropics, statistics from some large inland town would be of advantage. Finally, many of the patients in Bombay are sailors who have spent little time in the tropics (and abscess is exceedingly rare during the first year's residence in India), and whose life amid the equable climate of the high seas is antagonistic to the development of this disease.

Dr. Harley's statistics also show that the percentage of abscess among the natives in the Bombay hospital was 0.58 per cent, which is little inferior to that among Europeans in the same city, 0.66. The disease is, however, much rarer among the jail population in the interior, the result no doubt of their more temperate habits.

In Moorehead's time, however, the European mortality was 7.38 per cent against 3 per cent in the native hospital; the greater equalization of incidence among the two races probably points to the increasing alcoholic demoralization of the natives in large Indian cities.—*Medical Press.*

ON THE RADICAL CURE OF HERNIA.—A. Rabagaliati, M. D., writes in the British Medical Journal: I have not had the large personal experience which some surgeons can boast of in the treatment of hernia, but I have had the opportunity of watching a large number of cases treated in the Bradford Infirmary during some years past, and of comparing the general results in my own practice and those of other surgeons. Of cases in which I have performed the operation solely with the view of effecting a radical cure, without the presence of urgent symptoms indicating the necessity of operation, I have notes of three cases. In all of them the operation was perfectly successful. I will make a few remarks on these cases immediately. In seven other cases I have operated on account of urgent symptoms of strangulation, at the same time removing the sac in the way to be described below, and have been fortunate enough to save all my cases at the time and to effect, in addition, in all of them to which my information extends, a radical cure of the condition. In five other cases I have operated for relief of strangulation, but without making any attempt to effect a radical cure by removing the sac. Of these three have died, and only two recovered. These five cases were all operated on previous to the time when I ventured to remove the sac, and when the old operation of cutting down and relieving the stricture and returning the bowel was the ordinary practice in Bradford. That operation I had seen to be followed by a shocking mortality. Looking back over a series of years ending with 1881, I find that actually about sixty per cent of the cases operated upon in the Bradford Infirmary sank after the operation. This being so, it was quite evident that something had to be done, and in casting about for remedies it seemed that perhaps the introduction of antiseptics might improve the position of affairs, especially as I had experienced considerable success in ovariotomy at that time. Accordingly, in 1882, having to deal with a strangulated femoral hernia in a female, I performed the ordinary operation antiseptically, but my patient, a woman aged seventy-two, died on the eighth day of peritonitis. My next case was a man suffering from strangulated scrotal hernia, and in him I operated again antiseptically, but, thinking that the cause of the fatal peritonitis in my previous case might have been want of free drainage (though there was no proof of this), I stitched up the wound except at the bottom, where I left a drainage-tube in.

I remember one of the infirmary residents said at the time he thought the drainage-tube calculated to prevent the proper influence of the antiseptic operation, but not knowing what better to [illegible] I left the tube in. To my great chagrin [illegible]patient, a man aged fifty-four, after [illegible]parently quite well for three days, [illegible] fifth day of peritonitis. Here was a [illegible] three cases out of five, none of th[illegible]ptional cases, and it seemed certain that [illegible] other means ought to be adopted to secure better results. In the light of further experience I can not help thinking that the procedure of removing the sac with or without the use of antiseptics, would probably have enabled me to avoid two of these three deaths. I was not aware at that time of what Professor Wood had said on the subject in 1873, at the Cambridge meeting of the British Medical Association, when he described removal of the sac, after the fashion more elaborately detailed since, in a memoir published in 1886. In 1883, however, my reflections on the subject led me to think that the peritonitis which killed so many of the patients probably began in the sac, and it occurred to me that possibly removal of the sac might get rid of this source of mortality. Besides, it was said that this course was being adopted at Leeds with good results. Accordingly, in my next case, I determined to put the idea into practice. It was a case of operation for radical cure, pure and simple; that is to say, there were no urgent symptoms of strangulation or incarceration in the case, and it was further of interest because the man (aged thirty-seven) had been twice operated on previously, once in Bradford, and once in London. The case is described in the Journal for November 15, 1884. The operation took place in May, 1883. The case did perfectly well, and there was no return of the hernia when the patient was seen three years after. As mentioned in the record of the case, the operation more nearly approached that known as the direct operation of Professor Gross, of Philadelphia, than any other recorded mode of operating. In September, 1883, Mr. McGill, of Leeds, published a paper in which he said that the peritoneum ought to be occluded in every case of herniotomy, and mentioned four methods in which this might be done. The first was stitching peritoneum and overlying tissues to their opposites as is done ordinarily for ovariotomy. The second was separating the sac from overlying tissues, and bringing edge of sac to edge of sac opposite, and then bringing skin to skin by a row of sutures more superficial. The third was ligaturing the sac and removing it; and the fourth ligaturing it and leaving it *in situ*. Mr. McGill at that time preferred course No. 3 to the others. My experience leads me to say that better than any of these methods is the method of excising the sac bodily, and then bringing edge to edge exactly as in ovariotomy. I read his valuable paper, however, at the time, and it no doubt had its influence on my practice.

In dealing with hernia for the effecting of radical cure, supposing there are no symptoms of strangulation present, an incision is made along the course of the hernia, and the parts are dissected till the fascia propria and then the sac of the hernia are reached. The sac is then exposed and cleared, the cord being put on one side. When it has been sufficiently cleared the sac is removed by the knife. I have not ligatured it first, not seeing any advantage to be gained by that course. After the sac has been removed, along with any omentum that seems redundant (I have removed six ounces by weight in one case) the wound is thoroughly cleaned, and the edges of the peritoneum picked up by the fine catgut sutures, and approximated edge to edge as in ovariotomy. Then the pillars of the ring, being first raised, are approximated by a second set of sutures; and finally the edges of the skin are brought together. The whole operation I have generally done under the spray, but not always. If parts are washed and sponged quite clean it does not seem to make much difference whether the spray is used or not.

For strangulated hernia the steps of the operation are essentially similar; but, of course, the stricture has to be found and relieved. There are some advantages of an important character in removing the sac which are not obtained by the similar operation of relieving the stricture when found. First of all the operation has been far less fatal, and I think this must be partly, at least, due to the tendency exhibited by the sac when it is left to inflame, the inflammation tending to spread to the peritoneum, and set up general peritonitis. A second great advantage is that one is far less likely to return an unrelieved stricture into the abdomen, imagining it to be relieved, than after the ordinary operation. I suppose when, after a short period of relief after operation, a patient begins to vomit again shortly, this is generally due to imperfect relief of the stricture. Such an accident is far less likely to happen after removal of the sac, because we get in this way a much larger view of the parts affected and their condition. Thirdly, removal of the sac and approximation of the edges as described makes an attempt at least toward radical cure, and the prevention, therefore, of the recurrence of the condition, which the ordinary operation does not. It is hardly necessary to say that if gangrene threatens in the gut we can certify ourselves of its condition by this operation, but it would be unlikely in any case that a gangrenous gut would be returned by a surgeon operating by any method.

Of my ten successful cases treated by the removal of the sac, six were cases of inguinal hernia, and four of femoral. Six were in females—namely, strangulated femoral hernia, one each, aged sixty-four, fifty-two, thirty-three, and thirty-one years; and two were strangulated inguinal hernia, aged sixty-three and thirty-eight. Four were in males, and were, one case, aged thirty seven, of operation for radical cure of inguinal hernia without symptoms of strangulation; two were cases of strangulated inguinal hernia, aged fifty and thirty years; and one, aged fifty-four, was a case of irreducible inguinal hernia.

Professor Kremianski's Aniline Treatment of Phthisis.—Professor Kremianski, who, it may be remembered (see the Lancet, March 5, 1887), proposed at the Moscow congress of Russian medical practitioners, held at the beginning of the present year, to treat phthisis by means of aniline, and whose views were generally condemned at the time, has just published a long letter complaining bitterly that he has been misrepresented and misunderstood, and that the most influential medical journals in Russia have refused to admit papers by various observers which contained favorable reports of trials made of the treatment while prominence has been persistently given to all unfavorable and unsuccessful cases. Again, it seems that the bactericide treatment by no means consists merely of aniline inhalations, but that many other substances are employed either in conjunction with aniline or without it. The detailed description of the treatment is set forth in Professor Kremianski's book, and apparently has not been at all accurately reported in any of the better known Russian journals. He is anxious to point out that some observations which have recently been published on the action of analine in large doses on the lower animals do not really militate against his views, because he never proposed that more than very minute doses of analine should be given. He is quite prepared to admit that his plan of treatment is as yet very imperfect, and that it requires much more elaboration; but he insists that his later experience only goes to confirm his belief in its value, and numbers of brother practitioners who have tried it finally have obtained good results. He expresses his regret that he has as yet been unable to make arrangements for publishing his book in some language more accessible than Russian to the majority of foreign medical men, from many of whom he has, he says, received inquiries about his system.

A Fable with a Sharp Point.—A recent graduate, who had but recently ceased to manipulate a plow, was basking in abundant leisure, when he was accosted by a lacerated uterus.

"Are you a doctor?" asked the uterus.

"Yes," replied the recent graduate, "let me sew you up."

"Hands off!" exclaimed the lacerated uterus, holding up her fallopian tubes in horror. "I have been sewed up too much already, and what I came here for is to know why you doctors can't let me alone. Once I was young and handsome (here the lacerated uterus sighed so loudly that the recent graduate murmured 'physometra'), but a long course of local treatment, injections, swabbings, applications, and operations have left me in this disfigured condition. Why are all the ills of humanity heaped upon my neck?" continued the uterus, wiping her lips with the fringed extremity of her left fallopian tube. "Why am I responsible for every thing from consumption to corns?"

At this moment a rectum came strolling along with his hands in his pockets, just in time to hear the last remark of the lacerated uterus.

"Rats, sister !" exclaimed the rectum.

"Brats, you mean," said the recent graduate, at which the rectum winked, but he continued:

"Rats, sister! It is I with my little pockets that have to bear every thing. My papillæ are cut off for paralysis, and my pockets are cut off for boils, and my sphincter is stretched for headaches, and I am maltreated in every way for the ills of other organs." Here the rectum smiled in an audible manner.

"Pockets! Papillæ!" exclaimed the recent graduate in a frenzied tone. "Great heavens! let me cut them out!"

"Not much," said the rectum, and he rubbed one of his piles in a soothing way. "I have seen too much of it already. Only yesterday my brother arose from his downy bed after such an operation very much disfigured, but still in the ring."

"Brother," said the lacerated uterus, "possibly your words are true, and I am going to have a protracted rest. But I must be going; will your hemorrhoidal highness accompany me?"

"Certes," said the rectum, with a smile upon his wrinkled countenance, and together they went out, leaving the recent graduate searching his pocket with an air of anxiety for a nickel wherewith to purchase beer.

"I would I had some gold!" sighed he, as he failed to find the elusive coin. Then, falling into an empty chair, the recent graduate assumed an attitude of acute despair.—*Medical Age.*

Cause and Effect of Excess of Fat in Human Milk.—Dr. Zalêski, of Dorpat, publishes a case in the *Vrach* which bears out the well-known doctrine that a peasant wet-nurse should not be made to change her habits and food for those customary among persons belonging to the wealthier classes of society. A baby four months old was brought to Dr. Zalêski with a history of diarrhea and an emaciated appearance. The wet-nurse, a peasant woman, who had been accustomed to live on black bread, potatoes, and very small quantities of milk and cheese, with no alcoholic liquor, was suddenly promoted to a rich and highly nitrogenous diet consisting of quantities of meat and eggs with at least two bottles of beer a day. Samples of the milk were analyzed. By Dr. Zalêski's advice her diet was changed so as more nearly to resemble that of her peasant home, the beer was stopped, and she was given some light manual labor to perform. At the end of a fortnight a great improvement had taken place. Her milk was again analyzed. The mean result in the two cases showed that there was but little difference in most of the constituents. The lactose, however, had increased from 4 40 to 5.46 per cent, and the fat had decreased from 6.29 per cent (which was the high figure denoting the proportion of fat in the first sample) to 3.79. Dr. Zalêski goes very fully into the literature of the subject, and gives analyses by many other observers. The conclusion to which he comes is that an excessively high percentage of fat in the milk, so far from being beneficial, is actually prejudicial to the health of the child, and that a highly nitrogenous diet tends to produce excess of fat, and, to a smaller extent, an excess in the saccharine matter in the milk.—*London Lancet.*

Alleged Discovery of a Cancer Bacillus.—As might have been expected, the statement so widely circulated a week ago, to the effect that Dr. Scheuerlen, of the Charité Hospital, Berlin, had discovered "the cancer bacillus," has received much qualification. It has since been declared that the inoculated animals have not exhibited any evidence of cancerous formation, and it is hinted that the experiments are very incomplete, and the "discovery" has been announced "more with regard to the present circumstances than to scientific accuracy." Should this be the case we may refer Dr. Scheuerlen to the inquiry conducted by Messrs. Shattock and Ballance, and communicated some months ago to the Pathological Society. He will find there a series of arguments in favor of the parasitic theory of cancer, but, on the other side, he will see that these investigators failed in obtaining any distinctive micro-organisms by the cultivation process from either healthy or diseased tissues. They did occasionally get evidence of contamination with bacteria, and it would be well to know what precautions were taken by Dr. Sehuerlen to avoid such contamination. Messrs. Shattock and Ballance suggest that the parasite is not bacterial, but possibly allied to the lowest protozoa; and the want of confirmation of the discovery of the bacillus will harmonize with their negative results.—*Lancet.*

Constipation among the French.—It is not surprising, considering their want of taste for out-door athletic amusements, that our French friends suffer extremely from constipation. The evil effects of fecal retention are therefore strongly marked in the inhabitants of the "gay and festive" capital, with the exception, perhaps, of the anemia or chlorosis to which Sir Andrew Clark has just drawn attention as a result of fecal decomposition. So universal is the constipation among all classes that, if a tradesman or restaurant-keeper desires to pass off any particular article of food or drink, he claims for it that it is "*refraïchissant,*" which is the equivalent for laxative. The article is forthwith gluttonously devoured. There is, indeed, very little inducement to cultivate a regular habit of the bowels in France. The *cabinets d'aisance* are cramped and uncomfortable when they are not, as they often are, filthy and stinking. Water-closets proper are only to be found at the hotels frequented by English and American travelers and in the homes of the few Frenchmen who have assimilated English ideas of what is comfortable and right in this respect, or who have married English heiresses. In ninety-nine cases out of a hundred the only water-supply is contained in a ewer, a few drops of which is sprinkled over the pan, the disappearance being facilitated by vigorously rubbing with the aid of a brush or stick, a piece of furniture which is to be found in the corner of every respectable French closet. From time to time a more thorough evacuation of the bowels is felt to be imperative, and a Frenchman who respects himself will devote at least two days to this important operation. He puts himself on a rigorous diet before and after taking the medicine, and only ventures out when completely reassured as to his fate. It is a recognized case of *force majeure*, and if one wishes to put off an engagement for dinner it is only necessary to write a polite note to the effect that *monsieur* or *madame*, as the case may be, is prevented coming "*ayant à se purger.*" As might have been expected, chemists vie with each other to invent the palatable and most reliable purgative, and it can hardly be denied that on the whole it is a more comfortable process than in this country. It is perhaps one of the things they do better in France. — *Medical Press.*

THE TEMPERATURE OF THE NEWLY BORN.— So great a change in the mode of life as happens when the fetus is detached from the mother might reasonably be expected to be accompanied by some variations of the temperature of the body. Authors have made some observations on this subject, but more are wanting before we can arrive at the truth. The conclusions of Eröss are worthy of attention, for they appear to be the result of careful observation. The temperature, always taken in the rectum, attains its highest degree at the time of birth, generally 37.7° C.=99.3° F.; in the course of one or two hours it sinks to its lowest degree, the average being 35.67° C.= 96.2° F. Two days after birth it attains its first maximum, which is less than the birth maximum by .3° C. The fourth or fifth day witnesses the second minimum, which is less than the first day by 1.2° C. The temperature rises again on the sixth day after birth, and reaches its second maximum—.1° less than the first—by the eighth day. The curve drawn to represent graphically these fluctuations of the corporeal temperature is interesting to study in the light of the nutritional processes. The first fall is clearly due to the excessive discharge of heat not being properly compensated by the production of heat; the subsequent rise must be regarded as the expression of a physiological reaction from the first fall. That the new-born do react to such conditions was proved experimentally by placing infants in cool baths and subsequently observing the effects on the temperature. Besides these variations, which may be regarded as physiological and dependent on changes in alimenation and rapidity of nutrition, pathological disturbances of the temperature of the body may be noted as the result of suppuration about the umbilicus, intercurrent intestinal catarrh, and the like. Greater fluctuations are observed in proportion to the feebleness of the infant. In opposition to Bärensprung and Förster, Eröss finds that the normal diurnal variation reaches its highest point in the morning at from 6 to 7 A. M., and its lowest point at midday from 12 to 1 P. M. The evening temperature between 6 and 7, and the night temperature between 12 and 1 A. M, are found to give a mean, and not to be maximum and minimum respectively. These latter conclusions certainly require to be investigated afresh. *London Lancet.*

THE CONVERSION OF BENIGN GROWTHS OF THE LARYNX INTO MALIGNANT.—At the recent Congress of German Naturalists and Physicians Professor Schnitzler read a paper upon the subject of the Malignant Degeneration of Benign Growths in the Larynx. He first described a case of epithelial carcinoma with secondary growths in the lymphatic glands and pleura, in a patient who some months previously had been operated on for papillomata, the recurrence of which had been treated by cauterization. The patient subsequently came under Professor Schnitzler's care with symptoms of perichondritis, but the carcinomatous nature of the disease was recognized, and the supervention of pleurisy some weeks later was considered to be due to a diffusion of the malignant disease. This diagnosis was confirmed after death, when, besides the laryngeal and pleural carcinoma, there were found necrosis of the thyroid cartilage and gangrene of the right lung. Professor Schnitzler remarked upon the rarity with which benign tumors take on malignant characters, he having seen such conversion only three times among hundreds of cases of laryngeal papillomata. He left undetermined the question whether the operations and frequent cauterizations induced the malignant disease, and said that endo-laryngeal operations upon papillomata should be discountenanced on this ground. He also spoke of the difficulty in the differential diagnosis between benign and malignant growths as well as between laryngeal syphilis and carcinoma. Dr Morelli related the case of a man whose larynx was so blocked by papillomatous growths as to necessitate tracheotomy prior to the thyrotomy, with complete ablation of the new growth and galvano-cauterization of the laryngeal wound. The patient left apparently cured, but wearing a tube. After the lapse of a year he returned with evident carcinomatous degeneration of the papilloma, which filled the larynx to the level of the tube, which was partially displaced and blocked by it. This was the only case of the kind that Dr. Morelli could recall within a period of nearly ten years. Dr. Seifert referred to a case published by Böhmer, where papillomata (histologically examined) had been treated by Professor Gerhardt and himself for a year, but which passed into carcinoma, for which extirpation of the larynx was practiced; but the patient did not long survive the operation.—*Ibid.*

PHARYNGEAL VEINS.—On the posterior and lateral walls of the pharynx a network of veins exists, having very unequal meshes. The principal efferent vessels empty themselves into the internal jugular veins, and communicate superiorly with the pterygopalatine vessels, median and posterior meningeal. The plexus is the terminal for numerous veins which proceed from the muscles, and especially of the mucous coat of the pharynx, beneath which they form the submucous network. MM. Bemier and Lapeyre have studied specially this network, which is found to present at the level of the inferior part of the posterior wall of the pharynx a very remarkable deep plexus, not described by authors, and merely mentioned by Cruveilhier. It is constant, and met with at all ages. It exists between the mucous coat in front and the inferior constrictor muscle behind, while the inferior angle of the middle constrictor partially conceals it. Irregularly oval in shape, its larger extremity is superior; it is composed of an agglomeration of a large number of veins ranged one against another, frequently anastomosed; and into it run veins from the pharyngeal mucous membrane, which form fine arborizations around it.—*Ibid.*

THE RELATION BETWEEN THE IMPLANTATION OF THE PLACENTA AND THE INSERTION OF THE CORD.—(By Francis H. Champneys.) In his work, "Accouchements Laborieux," no less an authority than Levret makes the following statements: That the insertion of the umbilical cord into the placenta varies as the insertion of the placenta on the uterine wall. If the placenta is central, the cord is centrally inserted; if the placenta is eccentrically planted, the cord is inserted nearer to the lower edge; if the placenta approaches the lower uterine orifice, the cord is inserted to its edge ("battle-door placenta"), and, indeed to its lower edge.

This is given, without corroborative facts, as an *ipse dixit* of Levret; but it still survives, though more than one hundred and thirty years old, and has even (at least in part) been indorsed by the writers of some of our most recent books.

Under these circumstances, I have thought it worth while to put the matter to the test. If it should prove true, it is so remarkable a fact that it should be accounted for; if it is false, the sooner it is relegated to the proper place for unauthorized statements and *ipse dixits* the better.

The following analysis of one hundred and eighty-eight cases treated in the General Lying-in Hospital is offered as a solution of the question. The patients number one hundred and eighty-eight, but, as one of them bore twins, the number of placentæ is one hundred and eighty-nine.

The table contains the class of insertion of the cord, states whether the insertion was up or down, gives the measures from which this is derived. The two next columns give the position of the placenta in the uterus; the two last columns give the position of the insertion of the cord in the uterus.

It will be seen that there is no order or proportion apparent in any of these relations.

As regards the position of the cord:

INSERTION OF CORD	DIRECTION OF POINT OF INSERTION.				
	Up.	Down.	Mid-way.	Not Noted.	Total.
Central	17	18	17	4	56
Lateral	46	54	16	1	117
Marginal	7	5	0	0	12
Velamentous	1	1	2	0	4
Total	71	78	35	5	189

Levret's dictum, therefore, has no foundation in fact.—*American Journal of Obstetrics.*

PHYSIOLOGY OF RENAL SECRETIONS.—Some time ago Max Hermann stated that the secretion of the kidneys varied on each side. It was objected to his experiments that reflex influences consecutive to exposure of the ureters might explain the difference. Zuelzer has studied the question in a case of vesical ectopia. Iodide of potassium, given by the mouth, appeared in the urine from one ureter at a different time from that of the other side; salicylic acid showed the same difference. Chemical analysis also proved that the portions of urea, phosphoric acid and sulphuric acid differed on the two sides. Great differences were observed in the quantity and density of the urine discharged from the two sides respectively. This difference leads Zuelzer to think that the composition of the blood in the aorta is far from being uniform.—*Lancet.*

The American Practitioner and News

"NEC TENUI PENNÂ."

Vol. IV. SATURDAY, DECEMBER 24, 1887. No. 13.

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A Journal of Medicine and Surgery, published every other Saturday. Price $3.00 a year, postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

Books for review, and all communications relating to the columns of the journal, should be addressed to the EDITORS OF THE AMERICAN PRACTITIONER AND NEWS, Louisville, Ky.

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VOLAPÜK; A UNIVERSAL LANGUAGE.

Not a great while since it was announced that Father Schleyer, a Catholic priest of Constance, had contrived a language designed to be universal. This language was formed out of various living tongues spoken by Caucasian races, the number of words taken from each being proportioned to its approach to universal use. The grammar is of the very simplest, and the pronunciation is rendered easy to people of all countries by leaving out such sounds as are peculiar to any one people and difficult for others to learn. Thus the sound of *th* is eliminated in behalf of the Germans and French, and *r* for the convenience of the Chinese. The language is said to contain about 12,000 words, and seems well adapted to the needs of the race and age. Already the number of clubs in different parts of the world engaged in its study is said to run up into the thousands; and in all the markets of Europe and commercial Asia Volapük dictionaries are for sale.

Not doubting that the language as constructed has many defects, it is certainly well calculated to meet a universal want. In America where the legal language is spoken by so many millions of people inhabiting a territory equal to a continent, and where an inexhaustible literature written in the vernacular can be obtained from the vast expanse of English speaking countries, the need of a universal language may not be so keenly felt. But in individual countries of Europe, where ten or twenty languages and dialects may be spoken in a single principality, and for all the East in fact, where every city has its permanently diverse tongues, there is a crying need for such a language.

It has been objected to Volapük, that it is the work of one man, and that a universal language will not be adopted until a congress of all nations shall agree upon its construction.

In our opinion the very fact that it has been constructed by one man speaks most in its favor. The construction of a language to meet in any way the wants of men must be a work of genius It would no more be possible for a congress of all nations to construct a language than it would be for a congress of poets to write an Iliad or a Paradise Lost. They would agree on nothing but an adjournment. Perhaps when Volapük is fully established as the language of the world's ready interchange of thought, a congress of savants may add something to it for the purpose of giving it a larger usefulness, and that day bids fair to be not a remote one.

The two most illustrative instances of manufactured languages are pigeon English, as spoken on the coast of China, and Chinook as found among the members of the mingled races in the employ of the Hudson Bay Company in Northwestern America. The Chinook has not more than twelve hundred words, selected or rather collected from English, French, and the various Indian languages of that region. Its structure is of the crudest, and yet at one time it furnished a most convenient medium of interchange among the trappers and traders of that wild region.

We believe that Volapük has come to

stay, and if a congress is to have any say in the matter, it must get to work with more dispatch than is the custom of congresses to do. It is to be hoped that within a few short years, with one's mother tongue and Volapük, a man can travel the wide world over, and never find himself altogether among strangers.

MATERNAL IMPRESSIONS.

Through the able and learned papers of Dr. Greenley and Dr. Dixon, in recent numbers of the Practitioner and News, our readers have been supplied with a clear presentation of the most advanced views in regard to the matter of maternal impressions.

There are still, however, some difficulties connected with the subject, and these and the possible fallacies in the arguments in the attempts to elucidate them, we propose to point out.

As shown by Dr. Dixon, a large proportion of deformities are beyond all dispute due to arrests of development at different stages of embryonic growth. Such, for instance, are cleft palate, ectopia of the viscera, spina bifida, and similar malformations. The various forms of inclosures and adhesions of fetuses need nothing more for their explanation than has already been supplied, unless it be an elucidation of the mysterious nature of growth itself. It does not seem to us, however, that we are altogether justified in assuming that there is no nervous connection between the mother and child and that therefore no influence can be exerted by the mother.

It is well known, of course, that no nerve tissue connects the two, but we can not be yet quite sure that the blood does not act as a store of nerve force that can be transferred from the mother to the infant. But this we have a right to conclude, impressions on the mind of the mother can not produce physical effects on the tissues of the fetus that they could not produce on her own tissues.

Atavism also will explain many deformities that otherwise must remain without explanation, reversions in innumerable instances pointing to previous forms in a way that can not admit of doubt. But evolution must not be made to bear more than its share. There are recorded cases of peculiar resemblances of human beings to animals that could by no possibility have been in the line of man's evolution. Children have looked, and hissed, and otherwise behaved like geese, as in the well-known case referred to by Maudesley; others have acted like sheep, and in their bearing exhibited a striking resemblance to these animals.

No evolutionist ever put the goose or the sheep in the line of the descent of man; whatever else, man certainly never was a bird, and just as certainly never was a sheep. Nor, as far as we know, had there been any fright or longing in these cases that would suggest an explanation of this deviation from type. We give these examples not for the purpose of following with an explanation, but of showing that there are features of reproduction due to powers that we do not at all understand.

Notes and Queries.

A Fable.—Once in a village there was a shoemaker who was very sick of a fever. Some one who was visiting the wife, said to her:

"Your husband has been sick for a long time. I can cure him. Give him as much pork and cabbage as he can eat, and he will get well of the fever."

The next day the woman fed her husband on pork and cabbage, and lo and behold! the fever left the man and he recovered. He put down in his note-book for future reference, "Pork and cabbage cures fever."

A few days later there was no ring of the anvil in the village smithy. The shoemaker went to inquire what had become of the blacksmith. He was told that he was sick of a fever. At once he said, "I know what will cure him, give him pork and cabbage."

The wife administered pork and cabbage and the blacksmith incontinently died. The shoemaker, on seeing the symbols of death on his neighbor's house, gets out his note-book to see if there has been any mistake. No, there it is, black and white, "Pork and cabbage cures fever." Finally, after rubbing his head awhile, he exclaimed, "I have got it," and he wrote in his note-book, "Pork and cabbage cures shoemakers with fever, but it kills blacksmiths." *Therapeutic Gazette.*

So many versions of the story of Abernethy and his silent patient having been told, we are inclined to give credence to the following, from the December number of the Leisure Hour, as being more thoroughly Abernethian in style than is usually told:

"The woman had heard of his peculiarity, that he disliked gabble. She held out her hand without a word. He told her what to do, and when to come back. She came back and exhibited the injured hand without a word. He gave her necessary directions, and so for a number of interviews. On her last call she held out her hand as before. He said, 'Cured; you need not come again.' Still, without a word, she handed him her purse to take out what he pleased. He handed it back, saying, 'Not a penny, Madam! You are the first sensible woman I ever met in my life.'"

Dr. Watkins, inspector of the State Board of Health of Louisiana, has recently examined the prisoners in the parish prison of New Orleans, and reports that he found a number of the inmates suffering from acute dropsy of the legs, arms, face, and body, due to confinement and insufficient and unwholesome food. Each prisoner is allowed a piece of bread and a pint of tea early in the morning, and one meal consisting of soup, the beef cooked in the soup, and bread. The beef is supplied by contractor at five cents and a half a pound, and has been repeatedly condemned by the resident surgeon. *Boston Medical and Surgical Journal.*

"The Epitome" (supplement to Braithwaite's Retrospect), in its issue for November, 1887, says: Our exchanges show that the report of the proceedings of the International Medical Congress distributed by the Medical Record has received a more extended acceptance or recognition by medical journals than any medical report ever published. The enterprise of William Wood & Co. is worthy of this high compliment, and it will recompense them for the arduous labor and money expended in not only sending slips to the English and American journals on application and without charge, but for the extraordinary outlay in having the report translated *in extenso*, and printed in the French and German languages for gratuitous distribution to the medical journals throughout the world. The total expense, we have been creditably informed, of obtaining the report, preparing and distributing it in the manner indicated above, was a little more than $4,000.

Statistics of Tracheotomy.—At the recent meeting of the Italian Surgical Society, in Genoa, Dr. Cabelli presented some statistics of tracheotomy which he had collected. In the first series of 132 cases there were 50 deaths and 82 recoveries. In a second series of 18 cases there were 5 deaths and 13 recoveries. In the first series, therefore, the recoveries numbered 62.2 per cent, and in the second 72.3 per cent.

The existence of an inflammatory zone about the umbilicus is one of the signs of medico-legal importance in judging whether an infant has lived after birth. In a recent case Dr. Kirk, of Edinburgh, found such a zone and gave judgment that the child had lived. As the result of subsequent investigation of several cases, he came to the conclusion that if a child lives an hour after birth there will be a slight circle of inflamed tissue about the insertion of the cord; this zone becomes more pronounced every hour after birth.—*Boston Medical and Surgical Journal.*

Man consumes, in his threescore years and ten, eighty tons of liquid and solid food. This calculation is based on an average consumption of one hundred ounces a day.—*Medical Record.*

Dr. von Harlingen, of Philadelphia, has been fined one hundred dollars by the Philadelphia Board of Health for failing to report two cases of leprosy now in the Municipal Hospital.

An Interesting Case of Prolonged Constipation.—Dr. Charles Chassaignac reports in the N. O. Med. Journal for November the following case in a man twenty-eight years of age: As far back as he can remember he has been of a constipated habit; has, however, always been healthy; does not think he has ever been under a doctor's care before. He has been a painter for ten years; has not been more constipated since working in lead, and *never has had lead colic.* The average interval between movements of his bowels is seventeen or eighteen days. They never remain locked less than two weeks. The longest time he was without stool was *one month and three days.* He was then in his usual good health, but became uneasy at the prolonged intermission, and proceeded to purge himself. A dose of oil failed, but a large amount of "senna, manna, and salts" had the desired effect; afterward he continued the even tenor of his way.

For the cause of this condition in the man we can only say that it may be from the fact of an unusually perfect gastric and intestinal digestion and absorption, leaving very little excrementitious matter, for his stools, when they do come, are not larger nor much more consistent than those of other people, and his diet and habits are not such as to lead to constipation.

Free Alcohol for Manufacturers.—If our Government wishes to do a thing which will practically benefit the business of the country and at the same time help reduce the surplus revenue now piling up in the treasury, let them abolish the tax on alcohol used in the arts and manufactures.

Hundreds of the minor industries use alcohol in some of their various processes. It is employed as a solvent or preservative in most of the liquid medicines; it is a principal item in perfumery, flavoring extracts, varnish manufactures, and enters into the arts in almost every conceivable way. Why not incorporate a provision in the tariff or tax reduction act (which it is an absolute necessity for the present Congress to pass), providing that any manufacturer or person using alcohol, upon presenting evidences satisfactory to the Secretary of the Treasury that a given quantity of alcohol has been used in his business for other than drinking purposes, shall be allowed a rebate of the tax which said alcohol has paid?

Most of the high officers of our Government and members of Congress are lawyers or professional men. But surely they are also good enough business men to see the advantage of such a proposition as this, and there ought not to be the slightest difficulty in having such a provision incorporated in our laws at the present time.

The Lucigen.—We learn from our contemporary Iron that a very successful demonstration of its great lighting powers was recently given at the Crystal Palace. The method of producing this light consists in forming an intimate mixture of air and minutely divided oil particles, resulting, when ignited, in a continuous, steady flame of great brightness. The mechanism, which is very simple, is worked by a small supply of compressed air, and the flame is under perfect control by merely turning a tap. As the light is produced by the combustion of crude and waste oils, its cost is, by actual measurement by the official gas analyst for Glasgow, found to be from one tenth to one twelfth the cost of gas, and about one twentieth that of electric light of the same actual candle power. It is stated that an area of half a square mile can be flooded with light equal to daylight at an expenditure of one shilling and three pence per hour.

An epidemic of typhoid and malarial fever is prevalent in Ottawa, but it is said to be of a mild type. The citizens and the clergy are becoming seriously alarmed, and are disposed to blame the physicians for not giving a satisfactory reason for the causes of the epidemic. The number of typhoid and malarial fever cases in the city is enormous. Many people think it is a low calculation to place the number at five hundred. It is stated that the doctors are almost run off their feet.